ORDER NO. AVS0801981A3

# Service Manual

## Network Camera

Model Nos. **WV-NW960, WV-NW964**

*Simplified*

Please file and use this service manual together with the original service manual for Model No. WV-NW960 and WV-NW964, Order No. AVS0801980C8.

## 规格 SPECIFICATIONS

**The Product with PbF**

**一般**

| | |
|---|---|
| 电源 | 交流220 V至240 V，50 Hz(WV-NW960/CH)<br>交流24 V，50 Hz(WV-NW964CH) |
| 功耗 | 90 W(WV-NW960/CH)，85 W(WV-NW964CH) |
| 环境温度 | －40 °C至+50 °C(推荐温度：35 °C以下) |
| 环境湿度 | 90 %以下(非浓缩) |
| 监视器输出(调整用) | VBS：1.0 V[P-P]/75Ω(PAL)，复合(BNC) |
| 外部I/O端子 | ALARM IN 1/BW IN, ALARM IN 2/ALARM OUT, ALARM IN 3/AUX OUT(各×1) |
| 麦克风输入 | ø3.5 mm，小型插口(可用麦克风：插入供电型)<br>电压：2.5 V ±0.5 V，输入阻抗：3 kΩ±10 % |
| 音频输出 | ø3.5 mm立体声小型插口(单声道输出，线路电平) |
| 防水能力 | 符合IP66抗气候变化标准 (IEC60529/JIS C 0920) |
| 加热器 | 内部温度低于10°C时启动 |
| 外形尺寸 | ø239 mm×360.5 mm(高)，球罩直径：160 mm |
| 重量 | 摄像机：约4.7 kg |

Panasonic®

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违者依法必究。

## ⚠ 警告

这个服务信息只仅提供给有经验的修理人员，不适应于一般公众。
它不包含任何警告或注意，来劝告无技术的人员在打算修理产品时所具有的潜在性危险。
只有有经验的专业技术人员才能够服务或修理电动供力的产品。即使按照本服务信息来打算服务或修理产品，也有可能造成重大伤亡。

**注意**
为了减少触电危险，请勿移动护盖（或背盖）。内部没有用户能自行修理的零件。应由有资格的人员进行维修工作。

在正三角形中闪烁的箭头符号，用以提醒用户在本产品附近出现较大的非绝缘“危险电压”足以对人体产生触电。

在正三角形中的注意号，用以提醒用户参考有关该机的重要操作与维修的文字说明。

中断电源：不管开关在“开”或“关”的状态下，电源线插入插座后，监视器就会有电源；开关要在“开”的状态下，监视器才会有动作，将监视器电源线拔除即可中断全部电源。

**请注意：**

- 本设备仅供室内使用。
- 在进行本机的接线或操作之前，请阅读底面的标签。

本产品的制造号码标示于装置的背面。
请在下面空白处填上本机的制造号码，并将此说明书妥加保存，以便万一遭窃时查核。

型号:_____

制造号码:_____

**警告：不可让本产品淋雨或受潮，且勿放置盛水容器于产品上，以免水滴溅人，发生火灾或触电。**

## 重要安全通知

本设备里面，使用了很多对安全非常重要的零件。这些零件都用 ⚠ 符号来标记在概要图和替换零件单里。使用制造厂家指定的配件来替换这些重要零件，是非常重要的，因为这些配件防止X线辐射，震动，火灾，以及其它危险。

## 关于无铅焊剂(PbF)

**PbF PCB的发行：**

使用无铅焊剂(PbF)制造的PCB将在PCB上刻有相应的显示标志。

**注意：**

- 无铅焊剂的熔点要比标准焊剂高。典型的熔点是摄氏35度-40度(华氏95度-104度)以上。请使用可以控制温度的焊铁，并将温度调整在摄氏360度-370度(华氏680度-698度)。在使用高温焊铁时,请小心不要太长时间加热。
- 当加热太高温度时(摄氏600度/华氏1112度)，无铅焊剂将有可能飞溅各处。
- 在修理我们的无铅焊剂PCB时，建议使用无铅焊剂(Sn - 3.0Ag - 0.5Cu) 或同类产品。

## 锂电池

**警告**

设备里的锂电池必须只能由有资格的人员替换。如果必要,请与您所在地方的Panasonic服务部联系。

**注意**

如果电池不正确地替换，有爆炸的危险。替换时，只可使用零件厂家所推荐的同型号的或者同等的产品。使用后的电池请根据厂家的指示废除。

**摄像机**

| | |
|---|---|
| 图像传感器 | 1/4英寸框式行间转移CCD |
| 有效像素 | 768(水平)×494(垂直) |
| 扫描面积 | 3.59 mm(水平)×2.70 mm(垂直) |
| 扫描系统 | 2:1隔行扫描(有网络输出运动适应隔行/逐行转换功能) |
| 最小照度 | 彩色：0.5 lx，黑白：0.04 lx<br>(灵敏度提高：OFF，AGC：高，F1.4广角) |
| 动态范围 | 52 dB类型(超级动态3：ON，快门速度：OFF) |
| 增益 | 开(低)/开(中)/开(高)/OFF |
| 快门速度 | OFF (1/60),自动,1/100 |
| 灵敏度提高 | 最多32× |
| 黑白模式 | ON/OFF/自动(高)/自动(低) |
| 白平衡 | ATW1/ATW2/AWC |
| 数字降噪(DNR) | 低/高 |
| 电子变焦 | 最多10× |
| 摄像机标题 | 可多达16个字符(字母数字字符，标志)ON/OFF |
| 视频移动检测报警 | ON/OFF，每个预置位置4个区域 |
| 图像保持 | ON/OFF |
| 图像稳定 | ON/OFF |
| 保密区 | ON/OFF(可多达8个区域) |

**镜头**

| | |
|---|---|
| 变焦比 | 30× |
| 焦距长度 | 3.8 mm至114 mm |
| 最大光圈口径比 | 1 : 1.4(广角)-3.7(望远) |
| 近摄 | 1.5 m |
| 光圈范围 | F1.4至22，关闭 |
| 视角： | 水平：1.9°(望远) -52°(广角)<br>垂直： 1.4°(望远) -40°(广角) |

**摇动/俯仰云台**

| | |
|---|---|
| 摇动范围 | 360°循环式摇动 |
| 镜头摇动速度 | 手动：约0.065°/s至120 °/s，预置：最多大约400 °/s |
| 俯仰范围 | －5°至185°(水平 - 垂直 - 水平)(根据TILT ANGLE设置而定)<br>可选俯仰角度：0°/－1 °/－2 °/－3 °/－4 °/－5 ° |
| 镜头俯仰速度 | 手动：约0.065°/s至120 °/s，预置：最多大约400 °/s |
| 预置位置数目 | 256 |
| 自动模式 | OFF/预置系列/自动摇动/自动跟踪/巡视 |
| 自行返回 | 10 s/20 s/30 s/1 m/2 m/3 m/5 m/10 m/20 m/30 m/60 m |
| 覆盖拍摄 | 360 °覆盖拍摄/预置覆盖拍摄 |

**网络**

| | | |
|---|---|---|
| 网络 | | 10BASE-T/100BASE-TX，RJ45插口 |
| 分辨率 | | VGA(640×480)/QVGA(320×240) |
| 图像压缩方法 | | |
| | MPEG-4 | 图像模式：　移动优先权/标准/质量优先权<br>传输类型：　单播/多点传送<br>位率：<br>（恒定速率）　64 kbps/128 kbps/256 kbps/512 kbps/1 024 kbps/2 048 kbps/4 096 kbps<br>（帧速率优先权）　4 096 kbps/无限制 |
| | JPEG | 图像质量：　0 Super fine/1 Fine/2/3/4/5 Normal/6/7/8/9 Low（10 级：0至9）<br>传输类型：　PULL/PUSH |
| 刷新时间间隔 | | 0.1 fps至30 fps(同时显示JPEG和MPEG-4时，JPEG的帧率将受限。) |
| 音频压缩方法 | | G.726(ADPCM)32 kbps/16 kbps |
| 带宽控制 | | 无限制/64 kbps/128 kbps/256 kbps/512 kbps/1 024 kbps/2 048 kbps/4 096 kbps |
| 协议 | | TCP/IP，UDP/IP，HTTP，RTP，FTP，SMTP，DHCP，DNS，DDNS，NTP，SNMP |
| 操作系统 | | Microsoft® Windows® XP Home Edition SP2, Microsoft® Windows® XP Professional SP2, Microsoft® Windows Vista®*1 32位*2 |
| 网络浏览器 | | Microsoft® Internet Explorer® 6.0 SP2, Microsoft® Internet Explorer® 7.0<br>*2使用32位Microsoft® Windows Vista®时需要Microsoft® Internet Explorer® 7.0。 |
| 最大同时访问数 | | 8(根据网络条件) |
| FTP客户端 | | 报警图像传输，FTP定期传输 |
| 多画面 | | 多画面可以同时显示来自16台摄像机(4台摄像机×4组)的图像。 |
| 小SD记忆卡(选购件) | | Panasonic生产(检查过在此摄像机上的性能。)<br>容量：64MB,128MB,256MB,512MB,1GB,2GB<br>*高容量SD记忆卡(SDHC)与本摄像机不兼容。 |

*1 使用Microsoft® Windows Vista®时关于对电脑的系统需求和注意事项的进一步信息参见"关于Vista®的说明"(PDF)。

# 标准附件　STANDARD ACCESSORIES

使用说明书 安装篇 ..... 1个
使用说明书 安装篇(英文)(CE对应) ..... 1个
光盘* ..... 1个
编码标签 ..... 1个
RJ45转换插口 ..... 1个
对准此标记 ..... 1对
前/后遮阳板固定螺钉..... 2个(包括1个备用螺钉)
水密盖 ..... 3个
插口为交流24 V(仅对于WV-NW964) ..... 1个
8P报警电缆 ..... 1个
(随机提供的4P报警电缆不用在本产品上。)

* 光盘中包括使用说明(PDF)和软件。

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(7) 由任何故障造成的注册数据丢失。

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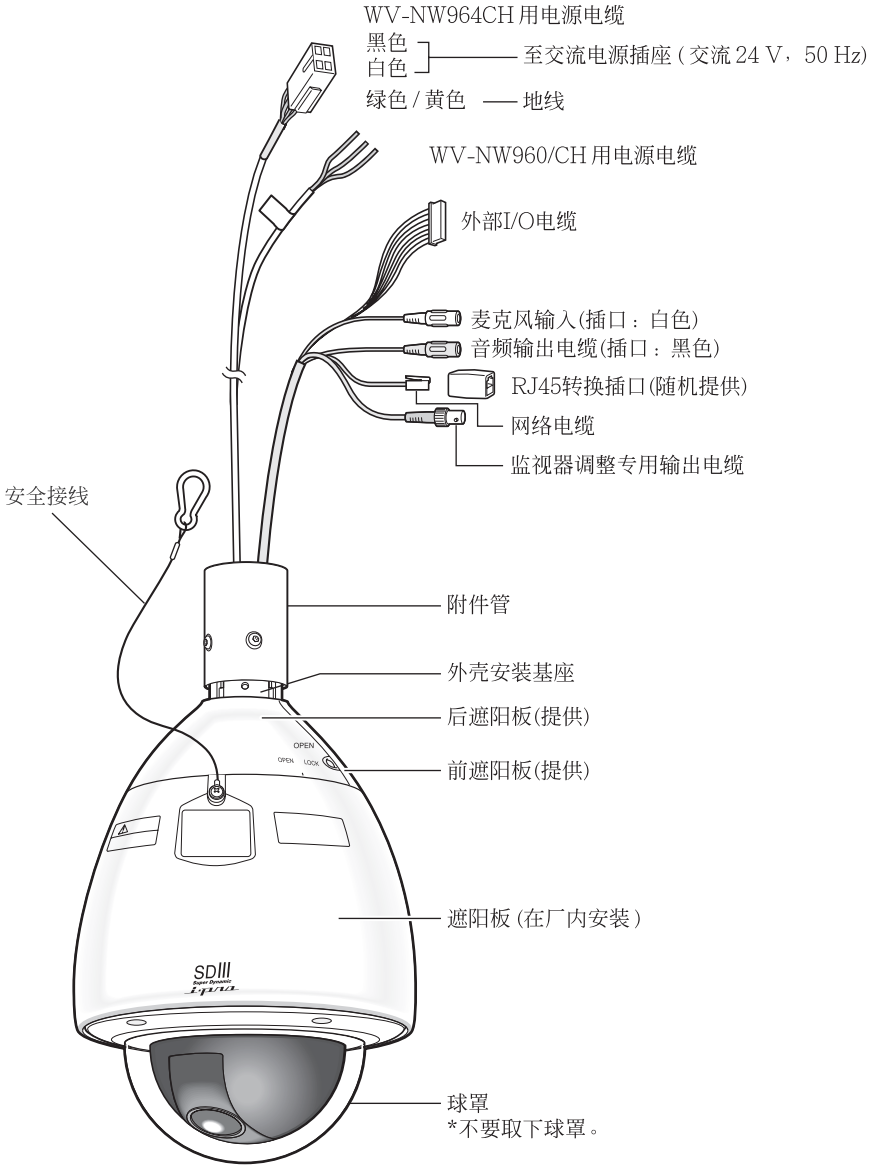
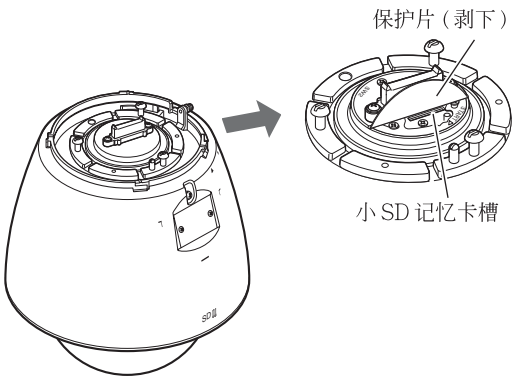
■ As for the rest of information, please refer to the original service manual.

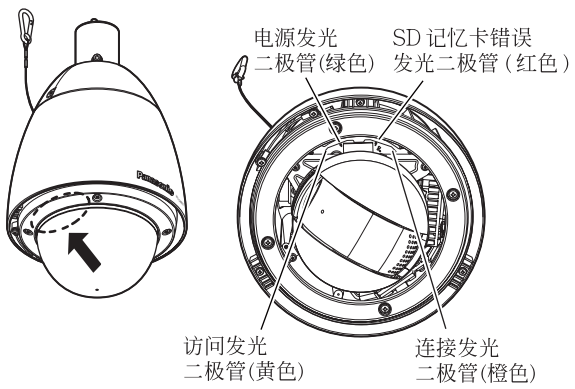
# 主要操作控制器及其功能
# MAJOR OPERATING CONTROLS AND THEIR FUNCTIONS




〈遮阳板上部〉




〈下视图〉

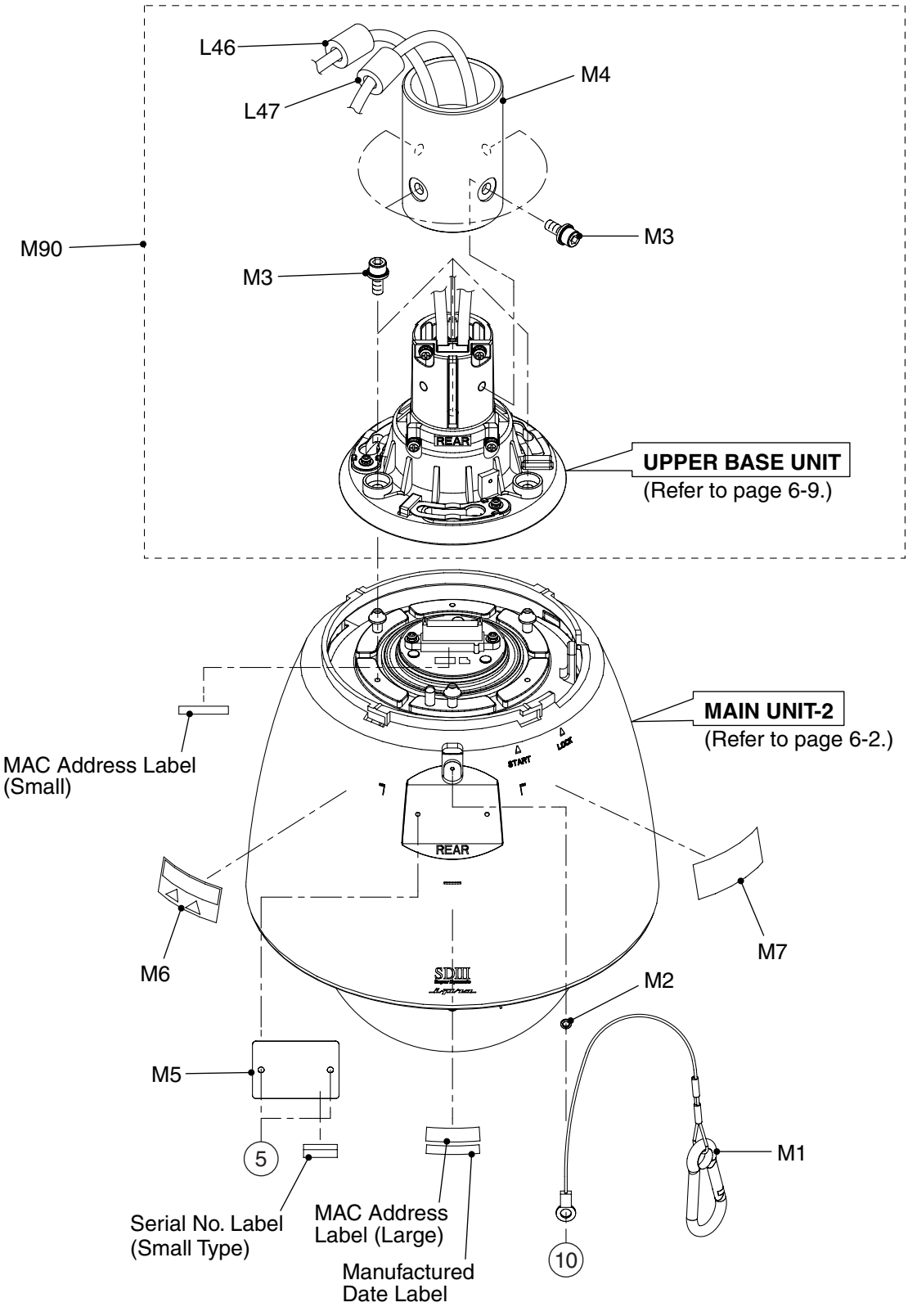


# EXPLODED VIEW (1/10)

○Numbers show screws.

| No. | Screws | Description |
|---|---|---|
| ⑤ | XTB3+8GV | Binding Head Tapping Screw |
| ⑩ | XSB4+8V | Binding Head Machine Screw |

## MAIN UNIT-1

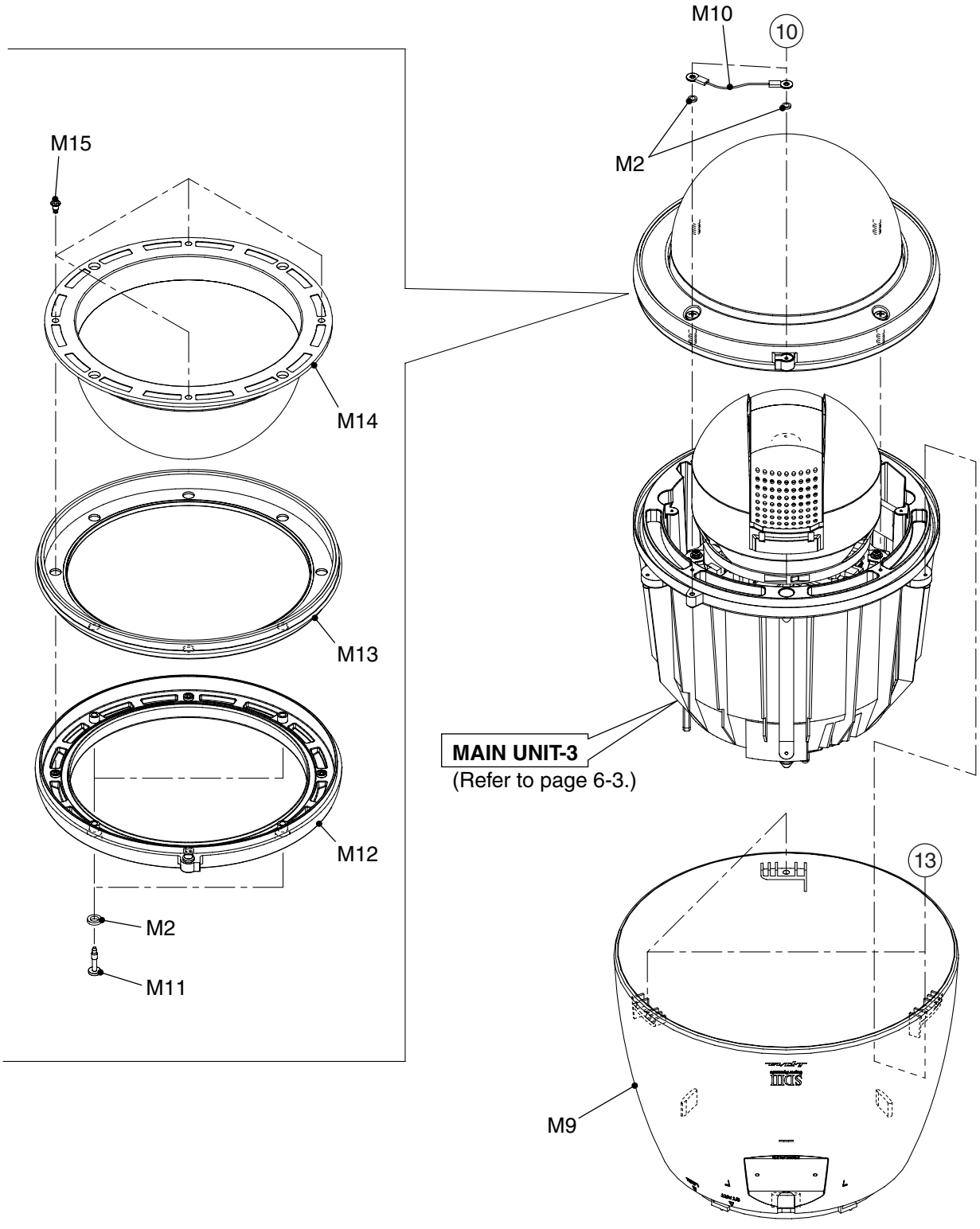


# EXPLODED VIEW (2/10)

○Numbers show screws and washers.

| No. | Screws | Description |
|---|---|---|
| ⑩ | XSB4+8V | Binding Head Machine Screw |
| ⑬ | XYN4+J10V | Pan Head Machine Screw and Washer Ass'y |

## MAIN UNIT-2

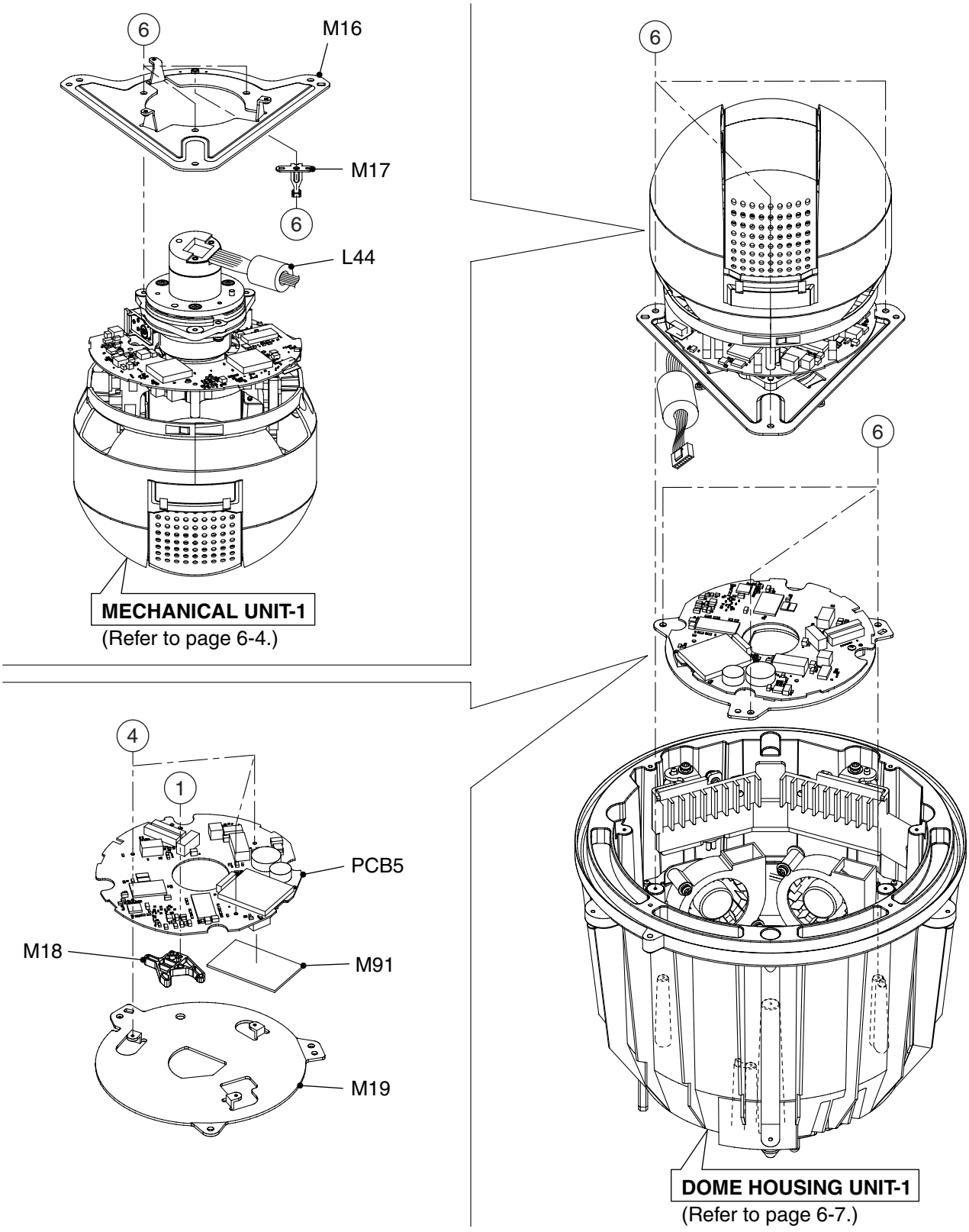


# EXPLODED VIEW (3/10)

○Numbers show screws and washers.

| No. | Screws | Description |
|---|---|---|
| ① | XTB2+6GFN | Binding Head Tapping Screw |
| ④ | XYN2+F6FN | Pan Head Machine Screw and Washer Ass'y |
| ⑥ | XYN3+F8FN | Pan Head Machine Screw and Washer Ass'y |

## MAIN UNIT-3

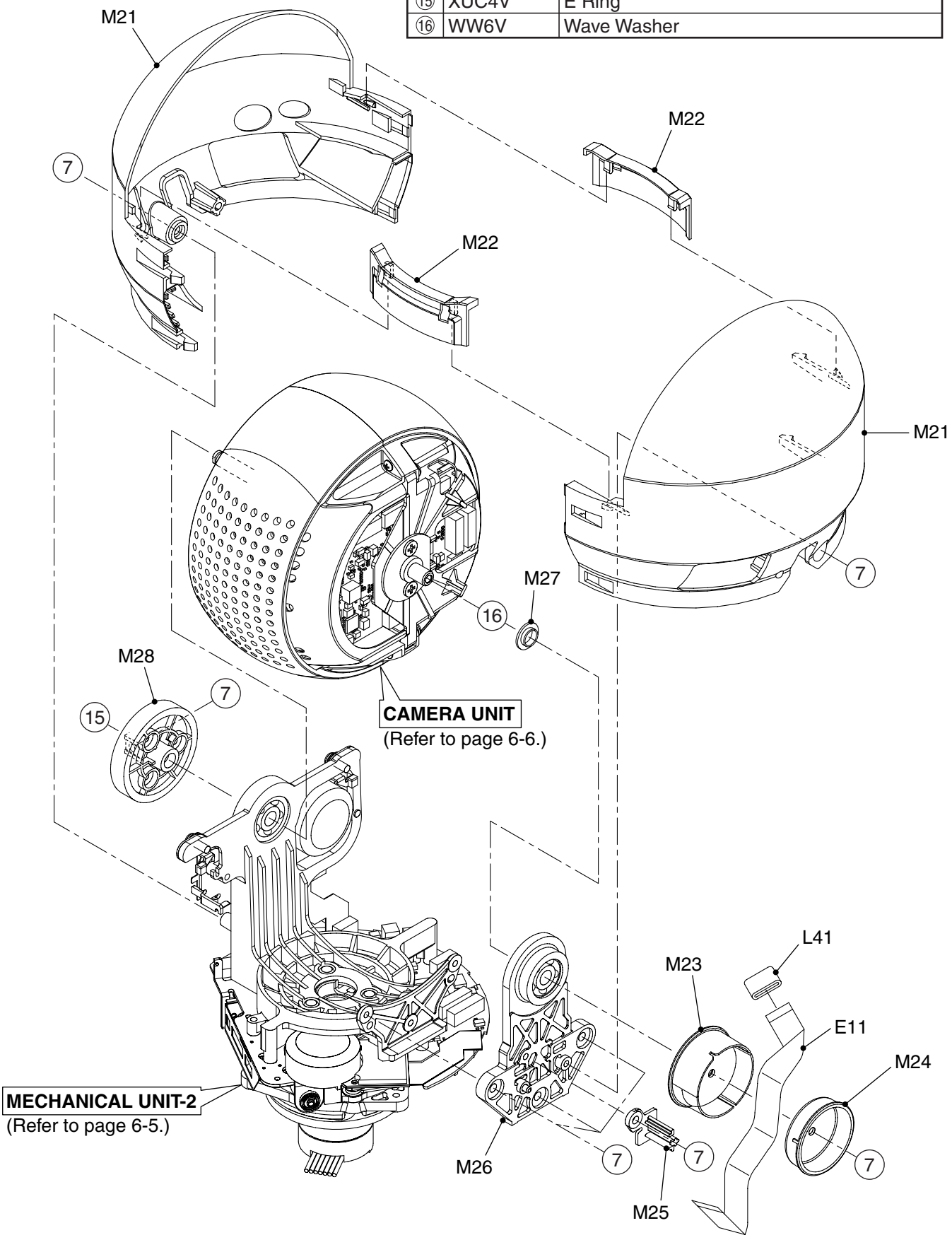


# EXPLODED VIEW (4/10)

○Numbers show screws and washers.

| No. | Screws | Description |
|---|---|---|
| ⑦ | XYN3+J8FN | Pan Head Machine Screw and Washer Ass'y |
| ⑮ | XUC4V | E Ring |
| ⑯ | WW6V | Wave Washer |

## MECHANICAL UNIT-1

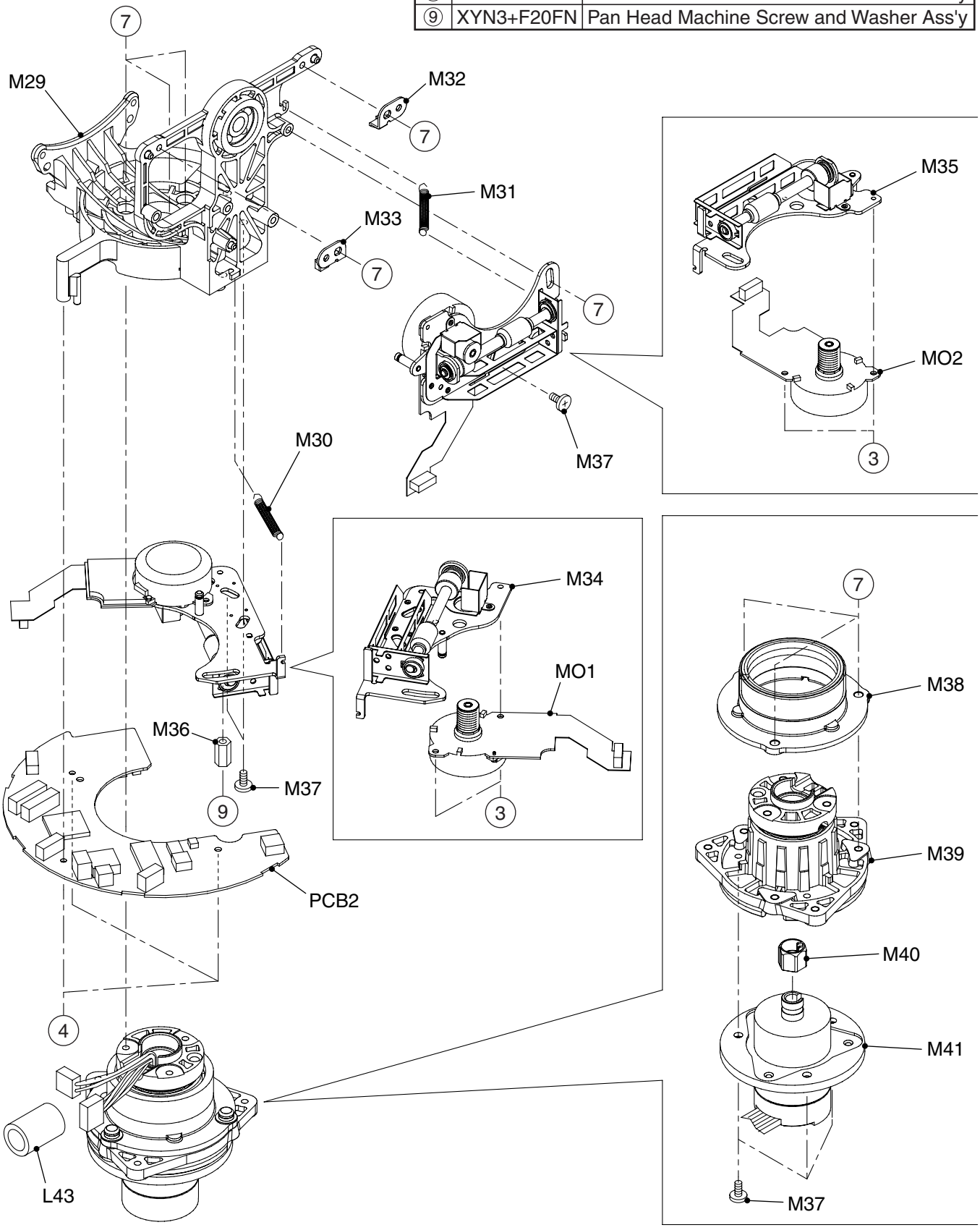


# EXPLODED VIEW (5/10)

○Numbers show screws and washers.

| No. | Screws | Description |
|---|---|---|
| ③ | XYN2+J4FN | Pan Head Machine Screw and Washer Ass'y |
| ④ | XYN2+F6FN | Pan Head Machine Screw and Washer Ass'y |
| ⑦ | XYN3+J8FN | Pan Head Machine Screw and Washer Ass'y |
| ⑨ | XYN3+F20FN | Pan Head Machine Screw and Washer Ass'y |

## MECHANICAL UNIT-2

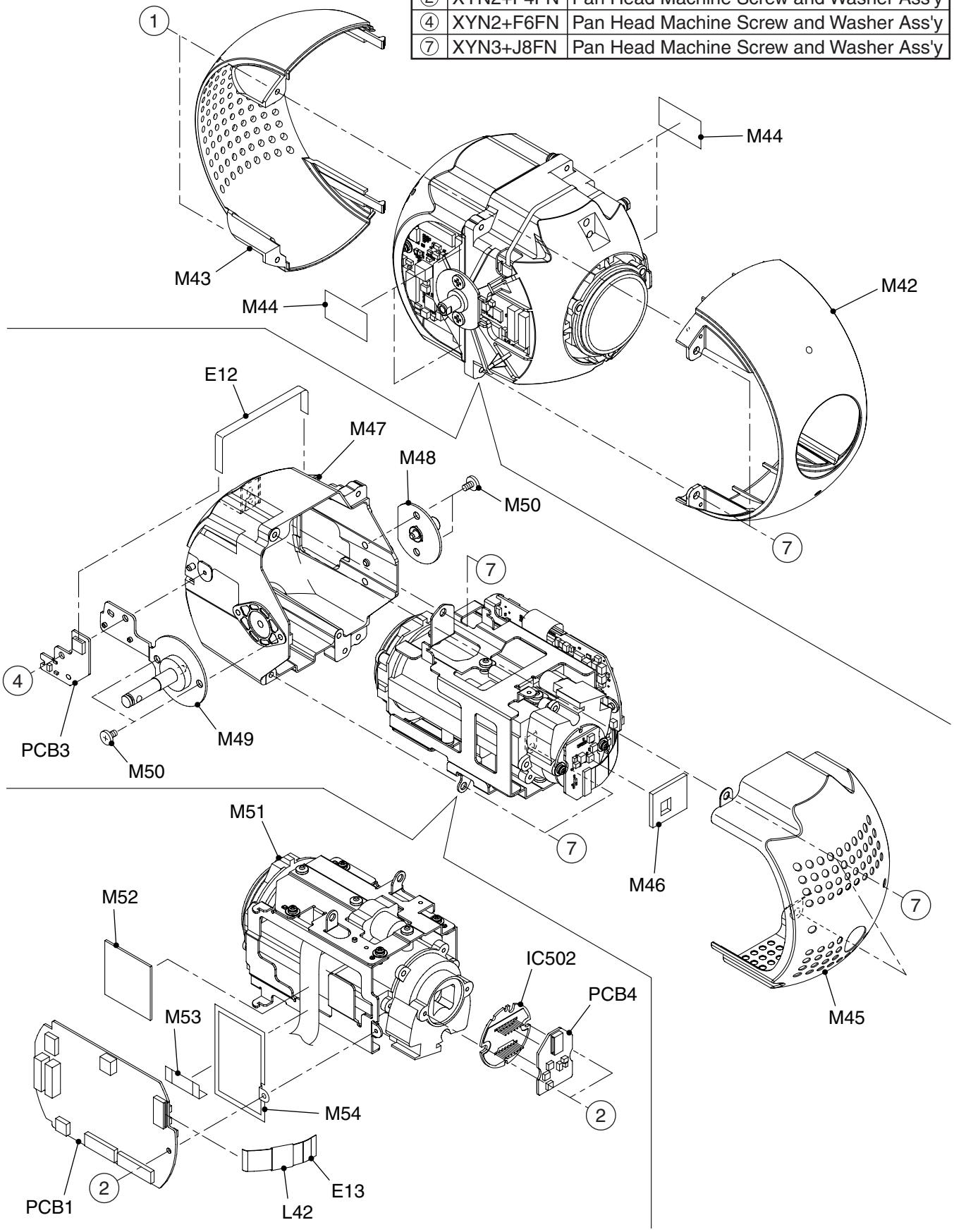


# EXPLODED VIEW (6/10)

## CAMERA UNIT

○Numbers show screws and washers.

| No. | Screws | Description |
|---|---|---|
| ① | XTB2+6GFN | Binding Head Tapping Screw |
| ② | XYN2+F4FN | Pan Head Machine Screw and Washer Ass'y |
| ④ | XYN2+F6FN | Pan Head Machine Screw and Washer Ass'y |
| ⑦ | XYN3+J8FN | Pan Head Machine Screw and Washer Ass'y |

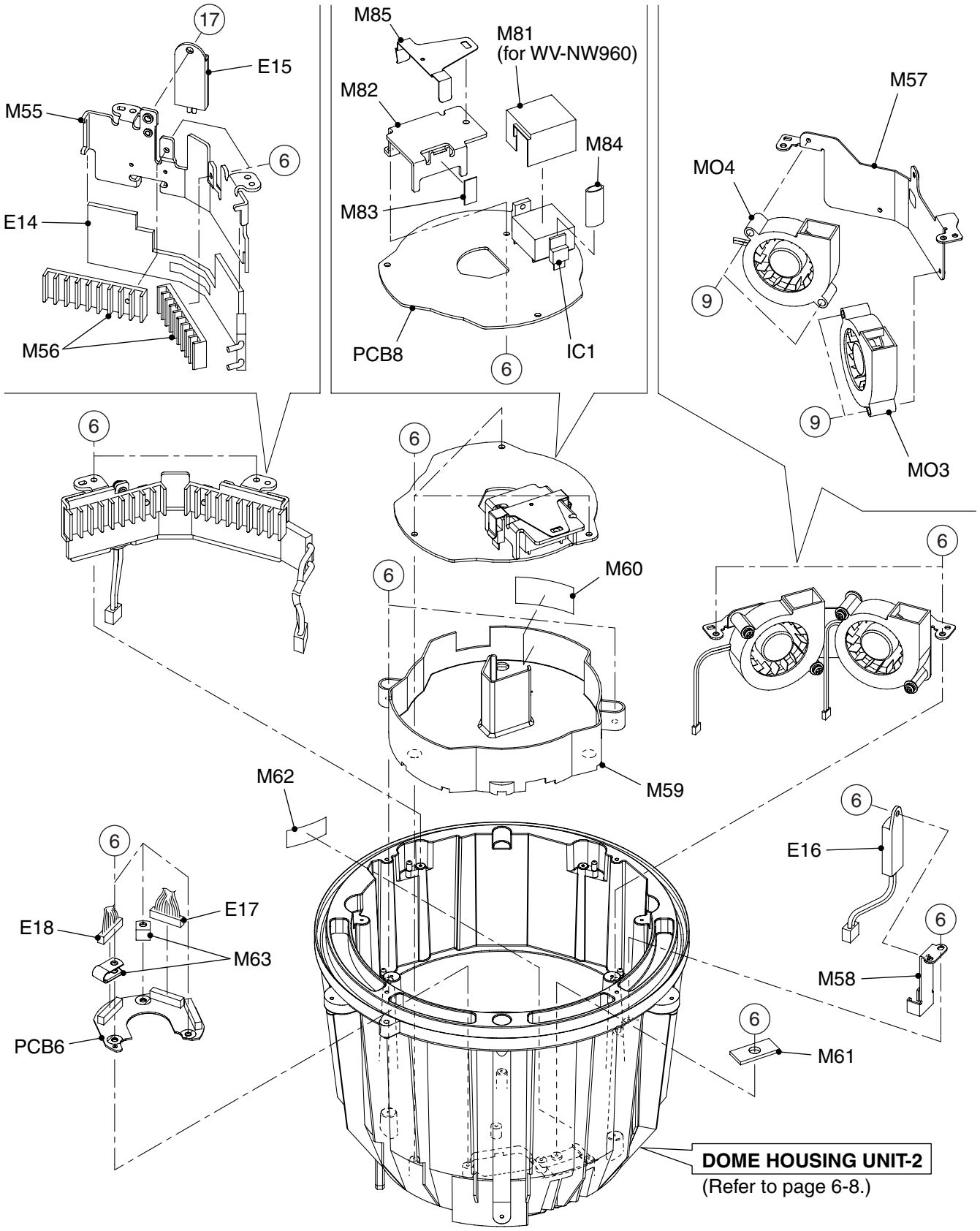


# EXPLODED VIEW (7/10)

○Numbers show screws and washers.

| No. | Screws | Description |
|---|---|---|
| ⑥ | XYN3+F8FN | Pan Head Machine Screw and Washer Ass'y |
| ⑨ | XYN3+F20FN | Pan Head Machine Screw and Washer Ass'y |
| ⑰ | XYN4+J8FN | Pan Head Machine Screw and Washer Ass'y |

## DOME HOUSING UNIT-1



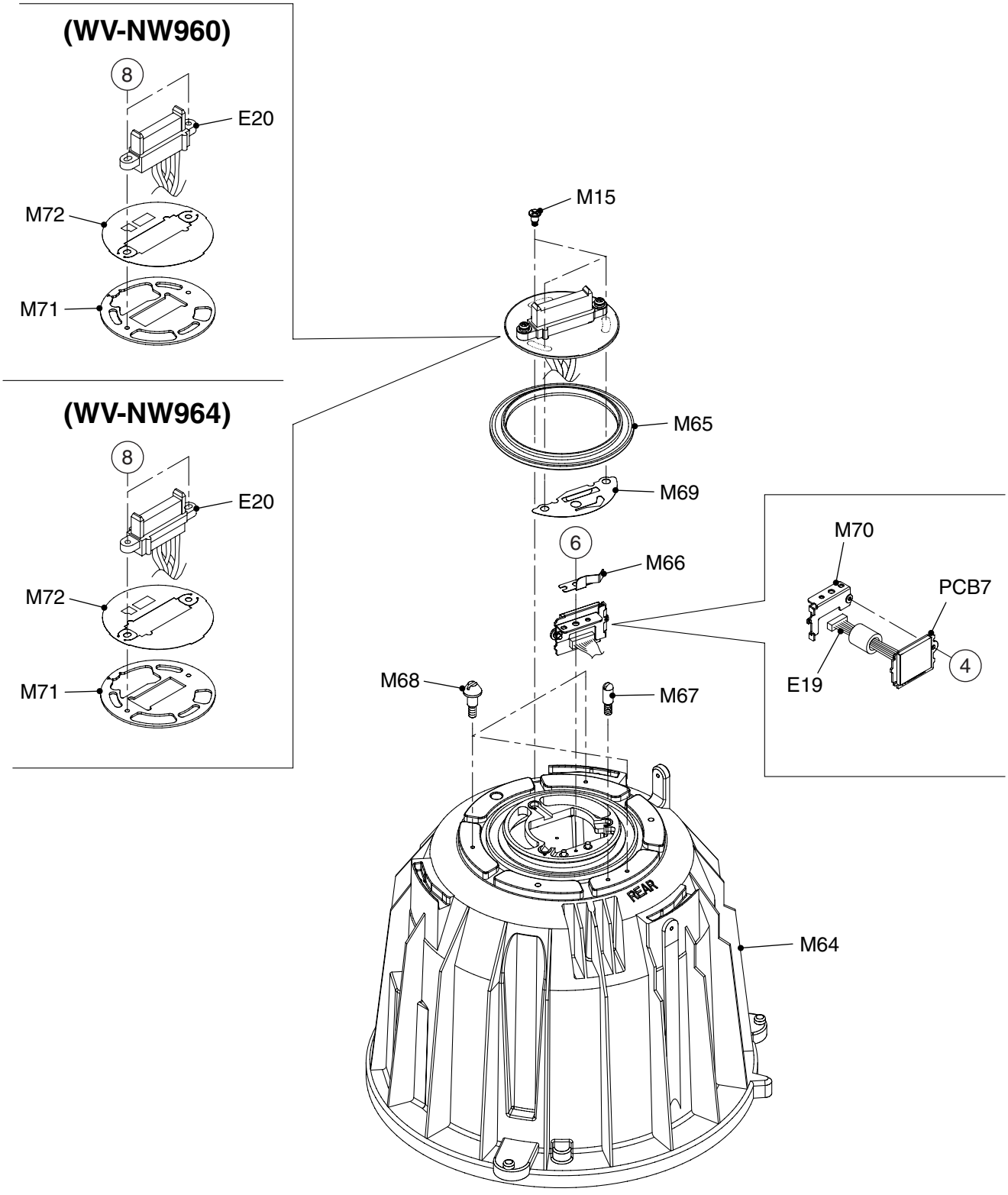

**DOME HOUSING UNIT-2**
(Refer to page 6-8.)

# EXPLODED VIEW (8/10)

○Numbers show screws and washers.

| No. | Screws | Description |
|---|---|---|
| ④ | XYN2+F6FN | Pan Head Machine Screw and Washer Ass'y |
| ⑥ | XYN3+F8FN | Pan Head Machine Screw and Washer Ass'y |
| ⑧ | XYN3+F12FN | Pan Head Machine Screw and Washer Ass'y |

## DOME HOUSING UNIT-2

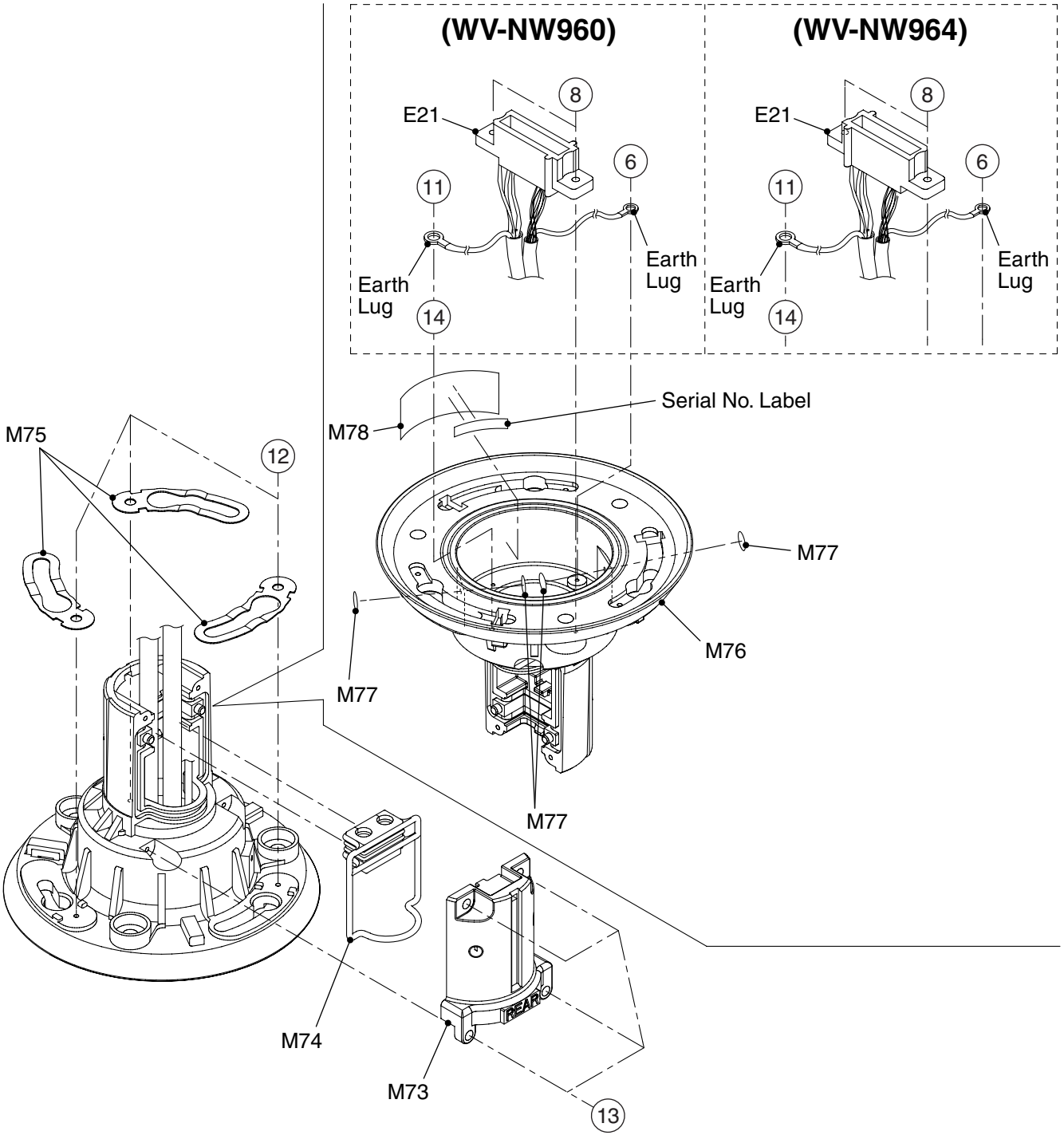


# EXPLODED VIEW (9/10)

○Numbers show screws and washers.

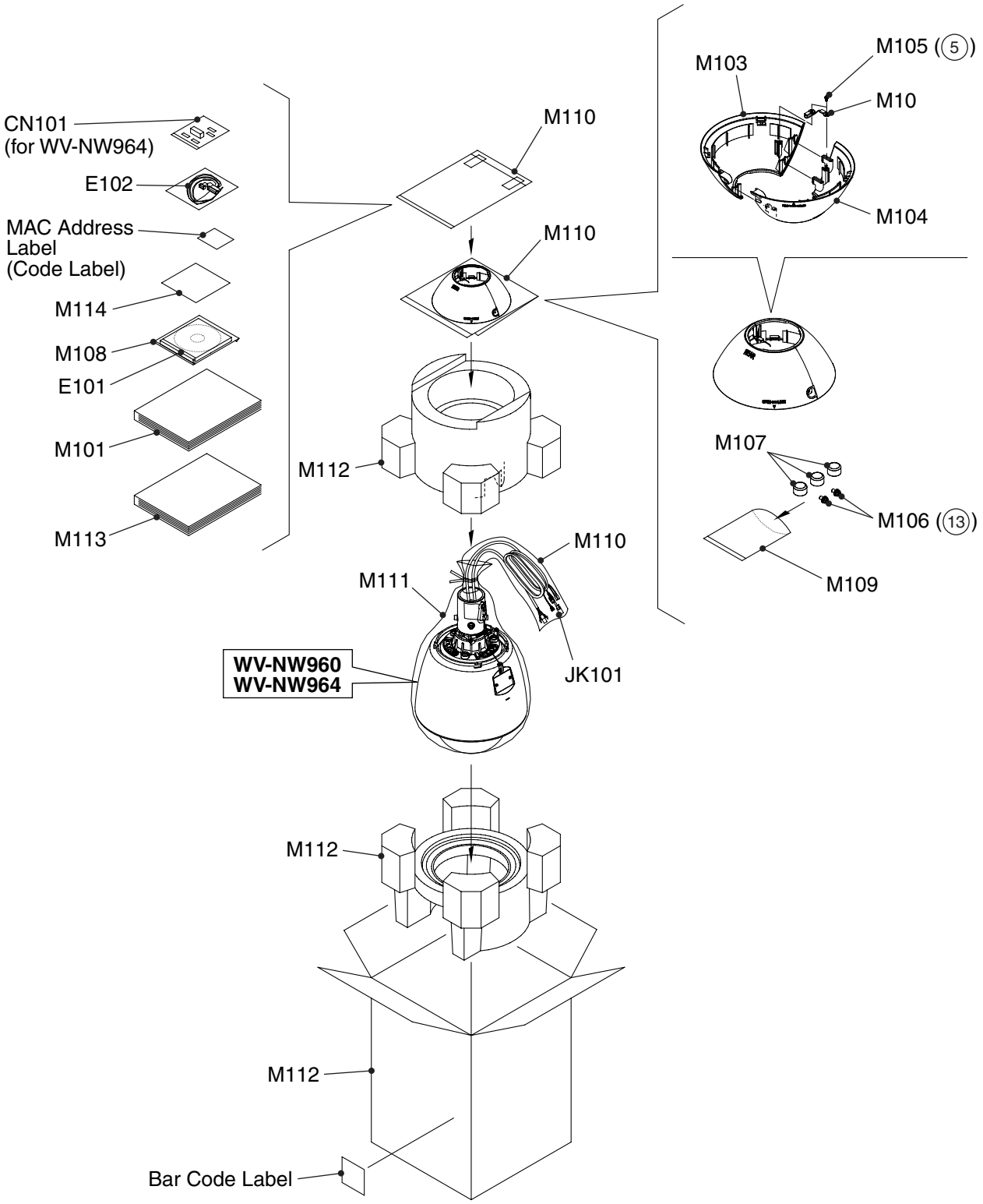
| No. | Screws | Description |
|---|---|---|
| ⑥ | XYN3+F8FN | Pan Head Machine Screw and Washer Ass'y |
| ⑧ | XYN3+F12FN | Pan Head Machine Screw and Washer Ass'y |
| ⑪ | XYN4+F6FN | Pan Head Machine Screw and Washer Ass'y |
| ⑫ | XYN4+F8V | Pan Head Machine Screw and Washer Ass'y |
| ⑬ | XYN4+J10V | Pan Head Machine Screw and Washer Ass'y |
| ⑭ | XWC4BFN | External Toothed Lock Washer |

## UPPER BASE UNIT



# EXPLODED VIEW (10/10)

## PACKAGING



# REPLACEMENT PARTS LIST

## Important Notice

1. Components identified by " ⚠ " mark have special characteristics important for safety.
   When replacing any of these components, use only manufacturer's specified parts.
2. RTL : Retention Time Limited (No longer available after discontinuing product).

| REF. NO. | | PART NO. | DESCRIPTION |
|---|---|---|---|
| **MISCELLANEOUS** | | | |
| IC502 | | VNS950JU8A | Head Optical Ass'y (CCD Image Sensor) |
| L41 | ⚠ | J0KD00000129 | Ferrite Core (for Camera FFC) |
| L42 | | J0KD00000052 | Ferrite Core (for Sensor Board FFC) |
| L43 | ⚠ | J0KE00000026 | Ferrite Core (for 5-pin Cable of Slip Ring) |
| L44 | ⚠ | J0KG00000122 | Ferrite Core (for 7-pin Cable of Slip Ring) |
| L46,47 | | J0KG00000013 | Ferrite Core (for Upper Base Cable) |
| MO1,2 | ⚠ | VCS950JU07 | Pan Motor Ass'y, Tilt Motor Ass'y |
| MO3,4 | ⚠ | L6FCYYYH0001 | Fan A,B |
| E11 | ⚠ | K9ZZ00001809 | Camera FFC (Flexible Flat Cable) for Main Board CN4 and Servo Board CN1 |
| E12 | | B06088BEGDD2 | Tilt Board FFC (Flexible Flat Cable) for Main Board CN204 and Tilt Board CN400 |
| E13 | | K9ZZ00001528 | Sensor Board FFC (Flexible Flat Cable) for Main Board CN300 and Sensor Board CN500 |
| E14 | ⚠ | L9DGYY000005 | AC Heater for WV-NW960 |
| | ⚠ | L9DGYY000006 | AC Heater for WV-NW964 |
| E15 | ⚠ | L2AA00000104 | AC Heater Thermostat |
| E16 | ⚠ | L2AA00000097 | Temperature Sensor |
| E17 | | K1PY12Y00001 | Switch Board Cable (12-pin) for Network Board CN702 and Switch Board CN3 |
| E18 | | K1PY13Y00009 | Switch Board Cable (13-pin) for Network Board CN701 and Switch Board CN2 |
| E19 | | K1PY13Y00010 | SD Slot Board Cable for Network Board CN704 and SD Slot Board CN1 (with Ferrite Core) |
| E20 | ⚠ | K1V317910001 | Relay Cable for Switch Board CN1, Power Board CN1 and Upper Base Cable |
| E21 | ⚠ | K1V522Y30003 | Upper Base Cable for WV-NW960 |
| | ⚠ | K1V626Y30002 | Upper Base Cable for WV-NW964 |
| M1 | ⚠ | V5YB0528AN | Safety Wire (for Fall Prevention) |
| M2 | | V7CA0540A4 | M3 Sealing Washer (WF type) |
| M3 | | 3AA001116AAA | Special Screw |
| M4 | | 3CA004027AAA | Attachment Pipe |
| M5 | ⚠ | 3PA004286AAA | Main Label for WV-NW960 |
| | ⚠ | 3PA004285AAA | Main Label for WV-NW964 |
| M6 | ⚠ | 3PC001273BAA | Caution Label (Screw Shock) |
| M7 | ⚠ | 3PC001274AAA | Caution Label (Installation) |
| M9 | ⚠ | 3DA002399BAF | Sun Shield for WV-NW960 |
| | ⚠ | 3DA002399BAG | Sun Shield for WV-NW964 |
| M10 | ⚠ | V5YB0529AN | Safety Wire |
| M11 | | V1AA1105B4 | Dome Stopper Screw |
| M12 | | 3CC001542AAA | Dome Waterproof Ring |
| M13 | ⚠ | 3CX001596AAA | Dome Sealing Packing |
| M14 | ⚠ | 3HP001150AAA | Dome Cover |
| M15 | | 3AA001112AAA | Wafer Head Screw |
| M16 | | 3CC001537AAA | Camera Mounting Bracket |
| M17 | | V0MA1230AN | Pan Magnet Ass'y |
| M18 | ⚠ | 3CJ001086BAA | Network Board Spacer |
| M19 | | 3CM001071AAA | Network Board Mounting Plate |
| M21 | ⚠ | 3DH001961AAA | Inner Dome |
| M22 | ⚠ | 3DA002426AAA | Elevertion Mask |
| M23 | ⚠ | 3CL001143BAA | FFC Holder |
| M24 | ⚠ | 3CL001144AAA | FFC Holder Cover |
| M25 | ⚠ | 3CL001145BAA | FFC Clamp |
| M26 | | KU0602 | Sub Chassis Ass'y |
| M27 | | 3AF001053BAA | Tilt Ring |
| M28 | ⚠ | V9AA3333B4 | Tilt Gear Ass'y |
| M29 | | KU0601 | Main Chassis Ass'y |
| M30 | | 3CW001153AAA | Pan Adjust Spring |
| M31 | | 3CW001156AAA | Tilt Adjust Spring |
| M32 | | V0MA1228AN | Tilt Magnet A Ass'y |
| M33 | | V0MA1229AN | Tilt Magnet B Ass'y |
| M34 | | KU0404B | Pan Spring Ass'y |
| M35 | | KU0403A | Tilt Spring Ass'y |
| M36 | | 3CK001180AAA | Hexagon Stud |
| M37 | | 3AA000001AAA | Wafer Head Screw (3 x 6) |
| M38 | ⚠ | 3FF001027AAA | Pan Gear |
| M39 | | SU1703 | Pan Bearing Holder Ass'y |
| M40 | ⚠ | 3CU001086AAA | Slip Ring Stopper |
| M41 | | VNS9501A01 | Slip Ring |
| M42 | ⚠ | 3DA002121BAA | Front Lens Cover |
| M43 | ⚠ | 3DA002122BAA | Rear Lens Cover |
| M44 | | 3DH001765AAA | Copper Foil Sheet |
| M45 | | 3DH001533CAA | Lens Shield Cover |
| M46 | ⚠ | 3KB001143AAA | Cooling Sheet (CCD) |
| M47 | | 3CB002299AAA | Lens Chassis |
| M48 | | V9AA3336C4 | Tilt Shaft (FFC) Ass'y |
| M49 | | V9AA3335C4 | Lens Chassis Protect Cover |
| M50 | | 3AA000001AAB | Wafer Head Screw (3 x 4) |
| M51 | | CC348A | Lens Ass'y |
| M52 | | 3DH001227AAA | Wave Absorption Sheet (Lens) |
| M53 | | 3PD003046AAA | Instruction Label |
| M54 | ⚠ | 3DH001634AAA | Main Board Shield Plate |
| M55 | | 3KA001224BAA | AC Heater Mounting Plate |
| M56 | | 3KA001225AAA | Heat Sink (for AC Heater) |
| M57 | | 3CC001538BAA | Fan Mounting Plate |
| M58 | | 3CC001539AAA | Temperature Sensor Mounting Plate |
| M59 | ⚠ | 3DG001395BAA | Power Insulator Cover |
| M60 | ⚠ | V7SA4570A4 | Fuse Replacement Label |
| M61 | ⚠ | V7DA1185A4 | Cooling Sheet (Power) |
| M62 | ⚠ | V7SA4611B4 | Identification Label (230V) for WV-NW960 |
| | ⚠ | V7SA4610B4 | Identification Label (24V) for WV-NW964 |
| M63 | | 1CL001086AAA | Cord Clamp |

| REF. NO. | | PART NO. | DESCRIPTION |
|---|---|---|---|
| M64 | | 3CE001939BAB | Dome Housing |
| M65 | | 3CX001594AAA | Upper Base Waterproof Sealing Packing |
| M66 | | V4JA1180A4 | Guide Spring |
| M67 | | V1EA1064A4 | Guide Pin |
| M68 | | V1EA1063C4 | Special Screw |
| M69 | ⚠ | 3CZ001238AAA | SD Slot Cover |
| M70 | | 3CA005171AAA | SD Slot Board Mounting Plate |
| M71 | | 3CA005147AAA | Connector Mounting Plate for WV-NW960 |
| | | 3CA005147AAB | Connector Mounting Plate for WV-NW964 |
| M72 | ⚠ | 3CZ001235AAB | Protection Sheet for WV-NW960 |
| | ⚠ | 3CZ001237AAA | Protection Sheet for WV-NW964 |
| M73 | | 3CC001541BAA | Upper Base Waterproof Cover |
| M74 | ⚠ | 3CX001592AAA | Upper Base Cable Waterproof Packing |
| M75 | | 3CW001198AAA | Waterproof Spring |
| M76 | | 3CC001540BAA | Upper Base |
| M77 | | M3AA1044A4 | Waterproof Filter |
| M78 | ⚠ | 3PB002724AAA | Simplified Main Label for WV-NW960 |
| | ⚠ | 3PB002723AAA | Simplified Main Label for WV-NW964 |
| M90 | | VNW960CU5A | Upper Base Unit Ass'y for WV-NW960 |
| | | VNW964CU5A | Upper Base Unit Ass'y for WV-NW964 |
| M91 | | 3DH001886AAA | Shield Sheet (42 x 25) |

| REF. NO. | PART NO. | DESCRIPTION | |
|---|---|---|---|
| **MAIN BOARD** | | | |
| PCB1 (RTL) | VNS95GKY3A | Printed Circuit Board Ass'y | |
| IC1 | VNS95SA202 | Micro Controller | |
| IC2 | C1AB00002415 | Digital Signal Processor (BGA. See **Notes** below.) | |
| IC3 | C3ABMY000009 | SDRAM | |
| IC5 | C3EBLC000033 | EEPROM (See **Notes** below.) | |
| IC6 | C0EBE0000276 | Voltage Detector | |
| IC8 | VNS95SA303 | Flash Memory | |
| IC14 | C0CBCBD00008 | 3.3V Regulator | |
| IC112 | YWNJM2902VT1 | Quad Operational Amplifiers | |
| IC200 | C0ZBZ0000888 | Temperature Sensor | |
| IC202 | C0GBD0000038 | Bidirectional Motor Driver | |
| IC203 | C0GBB0000027 | Fan Motor Driver | |
| IC300 | C0FBBF000039 | D/A converter | |
| IC301 | MN3112SAS-E1 | Vertical Driver | |
| IC305 | C0CBACC00026 | Voltage Regulator | |
| IC500 | C1AB00002057 | DC/DC Converter | |
| IC501 | C0JBAE000333 | 2-input OR Gate | |
| IC700,701 | C0ABBA000063 | Dual Operational Amplifiers | |
| IC702 | C0CBCDD00004 | Voltage Regulator | |
| IC703 | C0CBCAD00015 | Voltage Regulator | |
| IC800 | C0JBAB000661 | Inverter | |
| IC801 | C0CBCBD00008 | 3.3V Regulator | |
| IC802 | C1AB00002763 | Transmitter (QFN) | |
| IC1501 | C1AB00002129 | 12-bit CCD Signal Processor (CSP. See **Notes** below.) | |
| Q3 | B1ADCF000040 | Transistor | |
| Q6 | B1GDCFNN0001 | Transistor | |
| Q202 | 2SC4097QR6 | Transistor | |
| Q801 | B1CBCE000005 | FET | |
| D4,301 | YW1SS400TE61 | Diode | |
| D500,501 | MA2J72900L | Diode | |
| D502 | YW1SS400TE61 | Diode | |
| D800 | B0CCAB000039 | Diode | |
| R6 | ERJ2GEJ113X | Metal | 11K ohms 1/16W |
| R14 | ERJ2GEJ241 | Metal | 240 ohms 1/16W |
| R15 | ERJ2GEJ102 | Metal | 1K ohms 1/16W |
| R21 | ERJ2GEJ303 | Metal | 30K ohms 1/16W |
| R29-31 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R33 | ERJ2GEJ202 | Metal | 2K ohms 1/16W |
| R38,39 | ERJ2GE0R00 | Metal | 0 ohm 1/16W |
| R42,51 | ERJ2GEJ201 | Metal | 200 ohms 1/16W |
| R56 | ERJ2GE0R00 | Metal | 0 ohm 1/16W |
| R60 | ERJ2GEJ104 | Metal | 100K ohms 1/16W |
| R61,63 | ERJ2GE0R00 | Metal | 0 ohm 1/16W |
| R64 | ERJ2GEJ301X | Metal | 300 ohms 1/16W |
| R66 | ERJ2GE0R00 | Metal | 0 ohm 1/16W |

**Notes:**
- BGA package requires special equipment for replacement.
- CSP package requires special equipment for replacement.
- EEPROM (IC5) is blank when supplied as IC only.
  Loading the initial Data is required. (Refer to the page 2-1.)

| REF. NO. | PART NO. | DESCRIPTION | |
|---|---|---|---|
| R69,71 | ERJ2GEJ272X | Metal | 2.7K ohms 1/16W |
| R73 | ERJ2GEJ201 | Metal | 200 ohms 1/16W |
| R74 | ERJ2GEJ102 | Metal | 1K ohms 1/16W |
| R77 | ERJ2GEJ104 | Metal | 100K ohms 1/16W |
| R81 | ERJ2GE0R00 | Metal | 0 ohm 1/16W |
| R82 | ERJ2GEJ101 | Metal | 100 ohms 1/16W |
| R84 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R87-89 | ERJ2GEJ100 | Metal | 10 ohms 1/16W |
| R95 | ERJ2GEJ473X | Metal | 47K ohms 1/16W |
| R96 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R97,99 | ERJ2GE0R00 | Metal | 0 ohm 1/16W |
| R100 | ERJ2GEJ302 | Metal | 3K ohms 1/16W |
| R101 | ERJ2GEJ201 | Metal | 200 ohms 1/16W |
| R171 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R172 | ERJ2GEJ203 | Metal | 20K ohms 1/16W |
| R173-175 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R176 | ERJ2GEJ104 | Metal | 100K ohms 1/16W |
| R185 | ERJ2GEJ202 | Metal | 2K ohms 1/16W |
| R186 | ERJ2GEJ302 | Metal | 3K ohms 1/16W |
| R238,239 | ERJ6GEYJ3R3V | Metal | 3.3 ohms 1/8W |
| R243 | ERJ2GEJ512 | Metal | 5.1K ohms 1/16W |
| R246,247 | ERJ6GEYJ3R3V | Metal | 3.3 ohms 1/8W |
| R251,252 | ERJ2GEJ563 | Metal | 56K ohms 1/16W |
| R253 | ERJ3GEYJ620 | Metal | 62 ohms 1/10W |
| R263,264 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R265 | ERJ2GEJ105 | Metal | 1M ohms 1/16W |
| R269 | ERJ2GEJ152 | Metal | 1.5K ohms 1/16W |
| R271-274 | ERJ6GEYJ180 | Metal | 18 ohms 1/8W |
| R275 | ERJ2GEJ152 | Metal | 1.5K ohms 1/16W |
| R337 | ERJ2GEJ100 | Metal | 10 ohms 1/16W |
| R342 | ERJ2GEJ101 | Metal | 100 ohms 1/16W |
| R343 | ERJ2GEJ510X | Metal | 51 ohms 1/16W |
| R344 | ERJ2GEJ101 | Metal | 100 ohms 1/16W |
| R352 | ERJ2GEJ473X | Metal | 47K ohms 1/16W |
| R353 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R500 | ERJ2GEJ104 | Metal | 100K ohms 1/16W |
| R501 | D0HD824ZA002 | Metal | 820K ohms 1/10W |
| R502 | ERJ3EKF1103V | Metal | 110K ohms 1/16W |
| R503 | D0HB274ZA002 | Metal | 270K ohms 1/16W |
| R504 | D0HA243ZA001 | Metal | 24K ohms 1/16W |
| R505 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R506 | ERJ2GEJ473X | Metal | 47K ohms 1/16W |
| R507 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R508 | ERJ2GEJ473X | Metal | 47K ohms 1/16W |
| R700 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R701 | ERJ2GEJ513X | Metal | 51K ohms 1/16W |
| R702,703 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R704 | ERJ2GEJ154 | Metal | 150K ohms 1/16W |
| R705 | ERJ2GEJ562 | Metal | 5.6K ohms 1/16W |
| R706 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R707 | ERJ2GEJ514X | Metal | 510K ohms 1/16W |
| R708,709 | ERJ2GEJ333 | Metal | 33K ohms 1/16W |
| R710 | ERJ2GEJ105 | Metal | 1M ohms 1/16W |
| R711 | ERJ2GEJ162 | Metal | 1.6K ohms 1/16W |
| R712 | ERJ2GEJ102 | Metal | 1K ohms 1/16W |

| REF. NO. | PART NO. | DESCRIPTION | |
|---|---|---|---|
| R777(C711) | ERJ2GEJ511X | Metal | 510 ohms 1/16W |
| R800 | ERJ2GEJ102 | Metal | 1K ohms 1/16W |
| R801 | ERJ2GEJ201 | Metal | 200 ohms 1/16W |
| R802,803 | ERJ2GE0R00 | Metal | 0 ohm 1/16W |
| R804 | ERJ2GEJ152 | Metal | 1.5K ohms 1/16W |
| R805 | ERJ2GEJ101 | Metal | 100 ohms 1/16W |
| R806 | ERJ2GEJ102 | Metal | 1K ohms 1/16W |
| R807 | ERJ2GE0R00 | Metal | 0 ohm 1/16W |
| R808,809 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R810 | ERJ2GEJ105 | Metal | 1M ohms 1/16W |
| R811 | ERJ2GEJ330 | Metal | 33 ohms 1/16W |
| R812 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R815 | ERJ2GEJ473X | Metal | 47K ohms 1/16W |
| R816 | ERJ2GEJ102 | Metal | 1K ohms 1/16W |
| R817,818 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R820,821 | ERJ2GE0R00 | Metal | 0 ohm 1/16W |
| R822,823 | ERJ3GEYJ330 | Metal | 33 ohms 1/10W |
| R824 | ERJ2GEJ151 | Metal | 150 ohms 1/16W |
| R825 | ERJ2GEJ101 | Metal | 100 ohms 1/16W |
| R826,827 | ERJ2GE0R00 | Metal | 0 ohm 1/16W |
| R828,829 | ERJ3GEYJ201 | Metal | 200 ohms 1/10W |
| R830 | ERJ3GEY0R00 | Metal | 0 ohm 1/10W |
| R831 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| Z1-9 | EXB28V221JX | Block Resistor | 220 ohms |
| Z10 | EXB28V103JX | Block Resistor | 10K ohms |
| Z201 | EXB28V104JX | Block Resistor | 100K ohms |
| Z800,801 | EXB28V221JX | Block Resistor | 220 ohms |
| Z802,803 | EXB28VR000X | Block Resistor | 0 ohm |
| C1 | F1J0J2260004 | Ceramic | 22 µF |
| C4 | F1G0J1050005 | Ceramic | 1 µF |
| C5,6 | F1G1C104A077 | Ceramic | 0.1 µF |
| C16 | F1H1C105A118 | Ceramic | 1 µF |
| C17 | F1J0J2260004 | Ceramic | 22 µF |
| C18 | F1G1C104A077 | Ceramic | 0.1 µF |
| C19 | F1J0J2260004 | Ceramic | 22 µF |
| C23 | F3F1C335A036 | Tantalum | 3.3 µF 16V |
| C24-38 | F1G1C104A077 | Ceramic | 0.1 µF |
| C46-51 | F1G1C104A077 | Ceramic | 0.1 µF |
| C53,54 | F1G1C104A077 | Ceramic | 0.1 µF |
| C56-58 | F1G1C104A077 | Ceramic | 0.1 µF |
| C60-63 | F1G1C104A077 | Ceramic | 0.1 µF |
| C65 | F1G1H1020008 | Ceramic | 1000 pF |
| C67-69 | F1G1C104A077 | Ceramic | 0.1 µF |
| C70 | F1J0J2260004 | Ceramic | 22 µF |
| C71-76 | F1G1C104A077 | Ceramic | 0.1 µF |
| C145 | F1G1C104A077 | Ceramic | 0.1 µF |
| C146 | F1G1H200A565 | Ceramic | 20 pF |
| C147,200 | F1G1C104A077 | Ceramic | 0.1 µF |
| C201 | F1G1C104A077 | Ceramic | 0.1 µF |
| C211 | F3G1D106A018 | Tantalum | 10 µF 20V |
| C221-224 | F1G1H1020008 | Ceramic | 1000 pF |
| C225 | F1G1H330A565 | Ceramic | 33 pF |
| C227,228 | F1G1E1030005 | Ceramic | 0.01 µF |
| C232-235 | F1G1H1020008 | Ceramic | 1000 pF |
| C240,241 | F1G1C104A077 | Ceramic | 0.1 µF |

| REF. NO. | PART NO. | DESCRIPTION | |
|---|---|---|---|
| C242 | F3F1C106A039 | Tantalum | 10 µF 16V |
| C243,244 | F1G1C104A077 | Ceramic | 0.1 µF |
| C252 | F1G1C104A077 | Ceramic | 0.1 µF |
| C259 | F1J0J2260004 | Ceramic | 22 µF |
| C260 | F1G1C104A077 | Ceramic | 0.1 µF |
| C300 | F1J1E1050003 | Ceramic | 1 µF |
| C301 | F1G1C104A077 | Ceramic | 0.1 µF |
| C302,303 | F1G0J1050005 | Ceramic | 1 µF |
| C305 | F3G1A336A028 | Tantalum | 33 µF 10V |
| C308 | F1L1C1060018 | Ceramic | 10 µF |
| C319 | F1G1C104A077 | Ceramic | 0.1 µF |
| C323 | F3G1A336A028 | Tantalum | 33 µF 10V |
| C324 | F1J0J2260004 | Ceramic | 22 µF |
| C325 | F1G0J1050005 | Ceramic | 1 µF |
| C326 | F1L1C2260011 | Ceramic | 22 µF |
| C352 | F3G1A336A028 | Tantalum | 33 µF 10V |
| C353-355 | F1G1C104A077 | Ceramic | 0.1 µF |
| C356 | F1G1H1020008 | Ceramic | 1000 pF |
| C500,501 | F1L1C1060018 | Ceramic | 10 µF |
| C502 | F1G1C104A077 | Ceramic | 0.1 µF |
| C503 | F1J0J2260004 | Ceramic | 22 µF |
| C504 | F1G1C104A077 | Ceramic | 0.1 µF |
| C505 | F1G0J2240002 | Ceramic | 0.22 µF |
| C506 | F1G1H470A565 | Ceramic | 47 pF |
| C507,508 | F1K1E1060001 | Ceramic | 10 µF |
| C509 | F3G1C226A022 | Tantalum | 22 µF 16V |
| C510 | F1G0J1050005 | Ceramic | 1 µF |
| C511 | F1J0J2260004 | Ceramic | 22 µF |
| C700 | F1G0J1050005 | Ceramic | 1 µF |
| C701 | YW36B222K5T | Ceramic | 2200 pF |
| C702 | F3F1C106A039 | Tantalum | 10 µF 16V |
| C703 | F1H1C105A118 | Ceramic | 1 µF |
| C704 | F1G1A473A032 | Ceramic | 0.047 µF |
| C705 | F1G1E1030005 | Ceramic | 0.01 µF |
| C706 | F1G1C104A077 | Ceramic | 0.1 µF |
| C708 | F1G1H1020008 | Ceramic | 1000 pF |
| C709 | F1H1C105A118 | Ceramic | 1 µF |
| C710 | F1J0J2260004 | Ceramic | 22 µF |
| C712,713 | F1G1C104A077 | Ceramic | 0.1 µF |
| C800 | F1G1C104A077 | Ceramic | 0.1 µF |
| C801 | F3F1C106A039 | Tantalum | 10 µF 16V |
| C802 | F1G1C104A077 | Ceramic | 0.1 µF |
| C803 | F1J0J2260004 | Ceramic | 22 µF |
| C804 | F3F1C335A036 | Tantalum | 3.3 µF 16V |
| C805 | F1G1C104A077 | Ceramic | 0.1 µF |
| C806 | F1G1E1030005 | Ceramic | 0.01 µF |
| C807 | F1G1H470A565 | Ceramic | 47 pF |
| C810 | F1G1H1020008 | Ceramic | 1000 pF |
| C812,813 | F1G1C104A077 | Ceramic | 0.1 µF |
| C814 | F3F1A156A038 | Tantalum | 15 µF 10V |
| C816 | F1G1C104A077 | Ceramic | 0.1 µF |
| C817 | F1L1C1060018 | Ceramic | 10 µF |
| C818 | F1G1H1020008 | Ceramic | 1000 pF |
| C819 | F3F1C106A039 | Tantalum | 10 µF 16V |
| C820 | F1G1H1020008 | Ceramic | 1000 pF |

| REF. NO. | PART NO. | DESCRIPTION | |
|---|---|---|---|
| C821,822 | F1G1C104A077 | Ceramic | 0.1 µF |
| C823 | F1H1C105A118 | Ceramic | 1 µF |
| C824-831 | F1G1C104A077 | Ceramic | 0.1 µF |
| C900 | F1G1C104A077 | Ceramic | 0.1 µF |
| C901 | F1G1H1020008 | Ceramic | 1000 pF |
| C902 | F1J0J2260004 | Ceramic | 22 µF |
| C903,904 | F1G1C104A077 | Ceramic | 0.1 µF |
| C905,906 | F1G1H1020008 | Ceramic | 1000 pF |
| C907,908 | F1G1H101A565 | Ceramic | 100 pF |
| L2 | ELJFC2R2MF | Coil | 2.2 µH |
| L3 | ELJPA100KF | Coil | 10 µH |
| L4,5 | J0JHC0000075 | Coil | 60 µH |
| L204 | ELJFC100KF | Coil | 10 µH |
| L205 | ELJPA6R8MF | Coil | 6.8 µH |
| L207,302 | ELJFC100KF | Coil | 10 µH |
| L303 | ELJPA221KF | Coil | 220 µH |
| L304,310 | ELJFC100KF | Coil | 10 µH |
| L501 | G1C220KA0057 | Coil | 22 µH |
| L502 | ELJFC101KB | Coil | 100 µH |
| L503 | ELJPA330KF | Coil | 33 µH |
| L504 | ELJFC101KB | Coil | 100 µH |
| L700 | ELJFC100KF | Coil | 10 µH |
| L800 | G3A1R9C00003 | Coil | 1.9 µH |
| L801 | ELJFC101KB | Coil | 100 µH |
| L805,806 | J0JHC0000075 | Coil | 60 µH |
| L807,808 | J0JCC0000249 | Ferrite Bead | |
| X1 | H2D120500008 | Ceramic Oscillator | 12. 000 MHz |
| X4 | H1A5725B0001 | Crystal Oscillator | 57. 27272 MHz |
| X200 | H2D400400010 | Ceramic Oscillator | 4. 000 MHz |
| CN4 | K1MN24AA0007 | 24-pin Connector | |
| CN201 | K1MN26BA0038 | 26-pin Connector | |
| CN204 | K1MY06BA0069 | 6-pin Connector | |
| CN300 | K1MY20BA0126 | 20-pin Connector | |
| CN304 | K1MY10BA0068 | 10-pin Connector | |
| CN700 | K1MN18AA0007 | 18-pin Connector | |

| REF. NO. | PART NO. | DESCRIPTION |
|---|---|---|
| **SERVO BOARD** | | |
| PCB2 (RTL) | VNS95JKB4B | Printed Circuit Board Ass'y |
| IC1,2 | C0CBADE00006 | Voltage Regulator |
| IC3 | MN13821STP | Reset Signal Generator |
| IC4 | C0JBAZ002190 | Inverter |
| IC6 | MN101D03DME | 8-bit Micro Controller |
| IC7 | C0FBBD000205 | D/A Converter |
| IC9 | C0ABBA000025 | Operational Amplifiers |
| IC11 | NN8278FBP | Motor Position Detector |
| IC12 | C0DBAZZ00105 | Switching Regulator |
| IC13 | C0ABBA000025 | Operational Amplifiers |
| IC14 | NN8278FBP | Motor Position Detector |
| IC15 | C0GBH0000004 | Motor Driver |
| IC16 | C0DBAZZ00105 | Switching Regulator |
| IC17 | C0GBH0000004 | Motor Driver |
| IC18 | C0ABCA000021 | Operational Amplifier |
| IC25 | C0DBZFD00045 | Voltage Regulator |
| IC30 | C0DBAHZ00012 | Switching Regulator |
| IC31 | C0JBAA000317 | Quad 2-input AND Gates |
| IC34 | C0JBAE000333 | 2-input OR Gate |
| IC35,36 | C0JBAA000393 | 2-Input AND Gate |
| IC37 | YWNJM2901VT1 | Quad Comparators |
| Q1,2 | 2SB766A-QR | Transistor |
| Q3 | B1ABCF000060 | Transistor |
| Q17 | B1DHDD000034 | FET |
| Q24 | B1ABCF000060 | Transistor |
| Q25,26 | 2SB766A-QR | Transistor |
| D1 | B0BC5R000009 | Diode |
| D2,5 | B0JCMG000003 | Diode |
| D6 | B0JCME000041 | Diode |
| D7 | B0BC6R100010 | Diode |
| D16 | B0BC5R000009 | Diode |
| D17,18 | B0JCMG000003 | Diode |
| VS1 | B4ABB0000003 | Magnetic Sensor (Hall Element) |
| R1,2 | ERJ2GEJ103 | Metal 10K ohms 1/16W |
| R3 | ERJ2GEJ102 | Metal 1K ohms 1/16W |
| R14,15 | ERJ3GEYJ244V | Metal 240K ohms 1/10W |
| R16-18 | ERJ2GEJ752 | Metal 7.5K ohms 1/16W |
| R19 | ERJ3GEYJ244V | Metal 240K ohms 1/10W |
| R20,21 | ERJ2GEJ152 | Metal 1.5K ohms 1/16W |
| R22 | ERJ2GEJ752 | Metal 7.5K ohms 1/16W |
| R23 | ERJ3GEYJ244V | Metal 240K ohms 1/10W |
| R24-26 | ERJ2GEJ103 | Metal 10K ohms 1/16W |
| R27 | ERJ2GEJ203 | Metal 20K ohms 1/16W |
| R28 | ERJ2GEJ103 | Metal 10K ohms 1/16W |
| R29 | ERJ2GEJ203 | Metal 20K ohms 1/16W |
| R30-33 | ERJ2GEJ103 | Metal 10K ohms 1/16W |
| R47 | ERJ2GEJ682 | Metal 6.8K ohms 1/16W |
| R48 | ERJ2GEJ123 | Metal 12K ohms 1/16W |
| R52 | ERJ2GEJ104 | Metal 100K ohms 1/16W |
| R54 | ERJ2GEJ471 | Metal 470 ohms 1/16W |

| REF. NO. | PART NO. | DESCRIPTION |
|---|---|---|
| R55 | ERJ2GEJ184 | Metal 180K ohms 1/16W |
| R59 | ERJ2GEJ152 | Metal 1.5K ohms 1/16W |
| R61 | ERJ2GE0R00 | Metal 0 ohm 1/16W |
| R64 | ERJ2GEJ152 | Metal 1.5K ohms 1/16W |
| R65 | ERJ2GEJ333 | Metal 33K ohms 1/16W |
| R66 | ERJ2GEJ104 | Metal 100K ohms 1/16W |
| R67 | ERJ2GEJ113X | Metal 11K ohms 1/16W |
| R68,69 | ERJ2GEJ103 | Metal 10K ohms 1/16W |
| R70 | ERJ2GEJ123 | Metal 12K ohms 1/16W |
| R72 | ERJ2GEJ103 | Metal 10K ohms 1/16W |
| R73 | ERJ2GEJ471 | Metal 470 ohms 1/16W |
| R74 | ERJ2GEJ103 | Metal 10K ohms 1/16W |
| R75 | ERJ2GEJ203 | Metal 20K ohms 1/16W |
| R76 | ERJ2GEJ302 | Metal 3K ohms 1/16W |
| R77 | ERJ2GEJ103 | Metal 10K ohms 1/16W |
| R78 | ERJ2GEJ203 | Metal 20K ohms 1/16W |
| R80 | ERJ2GEJ113X | Metal 11K ohms 1/16W |
| R81,82 | ERJ2GEJ103 | Metal 10K ohms 1/16W |
| R84 | ERJ2GEJ103 | Metal 10K ohms 1/16W |
| R85 | ERJ2GEJ184 | Metal 180K ohms 1/16W |
| R87 | ERJ2GEJ104 | Metal 100K ohms 1/16W |
| R88 | ERJ6GEYJ220 | Metal 22 ohms 1/8W |
| R89 | D0HA912ZA001 | Metal 9.1K ohms 1/16W |
| R90 | D0HA473ZA001 | Metal 47K ohms 1/16W |
| R91 | ERJ14RSJR10U | Metal 0.1 ohms 1/4W |
| R92 | ERJ2GEJ242 | Metal 2.4K ohms 1/16W |
| R93 | ERJ2GEJ332 | Metal 3.3K ohms 1/16W |
| R94 | ERJ6GEYJ220 | Metal 22 ohms 1/8W |
| R96,97 | ERJ2GEJ103 | Metal 10K ohms 1/16W |
| R108 | ERJ2GEJ204 | Metal 200K ohms 1/16W |
| R109,113 | ERJ2GEJ103 | Metal 10K ohms 1/16W |
| R114 | ERJ2GEJ332 | Metal 3.3K ohms 1/16W |
| R117 | ERJ2GEJ242 | Metal 2.4K ohms 1/16W |
| R122 | ERJ2GEJ103 | Metal 10K ohms 1/16W |
| R124 | ERJ2GEJ822X | Metal 8.2K ohms 1/16W |
| R125 | ERJ2GEJ103 | Metal 10K ohms 1/16W |
| R126 | ERJ2GE0R00 | Metal 0 ohm 1/16W |
| R127 | ERJ2GEJ622 | Metal 6.2K ohms 1/16W |
| R128 | ERJ2GEJ242 | Metal 2.4K ohms 1/16W |
| R129 | ERJ2GEJ473 | Metal 47K ohms 1/16W |
| R133,146 | ERJ2GEJ562 | Metal 5.6K ohms 1/16W |
| R147-149 | ERJ2GEJ562 | Metal 5.6K ohms 1/16W |
| R189,190 | ERJ2GE0R00 | Metal 0 ohm 1/16W |
| R195-198 | ERJ6GEYJ821 | Metal 820 ohms 1/8W |
| R203,204 | ERJ12RQJR56U | Metal 0.56 ohms 1/2W |
| R205 | D0HA822ZA001 | Metal 8.2K ohms 1/16W |
| R206 | D0HA432ZA001 | Metal 4.3K ohms 1/16W |
| R207 | ERJ2GEJ333 | Metal 33K ohms 1/16W |
| R208 | D0HA822ZA001 | Metal 8.2K ohms 1/16W |
| R209 | D0HA432ZA001 | Metal 4.3K ohms 1/16W |
| R221 | ERJ2GEJ202 | Metal 2K ohms 1/16W |
| R252,253 | ERJ2GEJ103 | Metal 10K ohms 1/16W |
| R254,255 | ERJ2GEJ562 | Metal 5.6K ohms 1/16W |
| R265 | ERJ2GE0R00 | Metal 0 ohm 1/16W |
| R268,269 | ERJ2GEJ103 | Metal 10K ohms 1/16W |

| REF. NO. | PART NO. | DESCRIPTION | |
|---|---|---|---|
| R271,272 | ERJ2GEJ562 | Metal | 5.6K ohms 1/16W |
| R275-280 | ERJ6GEYJ220 | Metal | 22 ohms 1/8W |
| R402-404 | ERJ2GE0R00 | Metal | 0 ohm 1/16W |
| R405 | D0HA203ZA001 | Metal | 20K ohms 1/16W |
| R406 | D0HA472ZA001 | Metal | 4.7K ohms 1/16W |
| R407 | ERJ2GEJ163 | Metal | 16K ohms 1/16W |
| R408 | ERJ2GEJ333 | Metal | 33K ohms 1/16W |
| R409 | ERJ2GEJ561 | Metal | 560 ohms 1/16W |
| R410 | D0HA153ZA001 | Metal | 15K ohms 1/16W |
| R411 | ERJ6GEYJ182 | Metal | 1.8K ohms 1/8W |
| R412 | YF2116112JT | Metal | 1.1K ohms 1/8W |
| R413 | ERJ2GEJ163 | Metal | 16K ohms 1/16W |
| R414 | ERJ2GEJ561 | Metal | 560 ohms 1/16W |
| R415 | ERJ6GEYJ182 | Metal | 1.8K ohms 1/8W |
| R416 | YF2116112JT | Metal | 1.1K ohms 1/8W |
| R417 | ERJ2GEJ333 | Metal | 33K ohms 1/16W |
| R420 | D0HA113ZA001 | Metal | 11K ohms 1/16W |
| R421 | D0HA622ZA001 | Metal | 6.2K ohms 1/16W |
| R426,431 | ERJ2GEJ104 | Metal | 100K ohms 1/16W |
| R432 | ERJ2GEJ123 | Metal | 12K ohms 1/16W |
| R433 | ERJ2GEJ203 | Metal | 20K ohms 1/16W |
| R434 | ERJ2GEJ222 | Metal | 2.2K ohms 1/16W |
| R435-438 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R439 | D0HA153ZA001 | Metal | 15K ohms 1/16W |
| R440-442 | D0HA202ZA001 | Metal | 2K ohms 1/16W |
| R443 | D0HA102ZA001 | Metal | 1K ohms 1/16W |
| R445,447 | ERJ2GEJ102 | Metal | 1K ohms 1/16W |
| R450 | D0HA202ZA001 | Metal | 2K ohms 1/16W |
| R451 | ERJ2GEJ332 | Metal | 3.3K ohms 1/16W |
| R700 | ERJ2GE0R00 | Metal | 0 ohm 1/16W |
| C1,2 | F1G1C104A077 | Ceramic | 0.1 µF |
| C3 | F1H1A105A002 | Ceramic | 1 µF |
| C4 | F1G0J1050005 | Ceramic | 1 µF |
| C6-10 | F1G1C104A077 | Ceramic | 0.1 µF |
| C12-14 | F1G1C104A077 | Ceramic | 0.1 µF |
| C16,17 | F1G1C104A077 | Ceramic | 0.1 µF |
| C19 | F1G1H680A565 | Ceramic | 68 pF |
| C20 | F1G1E271A090 | Ceramic | 270 pF |
| C21,22 | F1G1C104A077 | Ceramic | 0.1 µF |
| C23-25 | F1G1C153A081 | Ceramic | 0.015 µF |
| C28-30 | F1G1C104A077 | Ceramic | 0.1 µF |
| C32 | F1G1C331A001 | Ceramic | 330 pF |
| C33 | YW36B103K1T | Ceramic | 0.01 µF |
| C34-36 | F1G1C104A077 | Ceramic | 0.1 µF |
| C37 | YW36B103K1T | Ceramic | 0.01 µF |
| C38 | F1G1H680A565 | Ceramic | 68 pF |
| C39 | F1G1C104A077 | Ceramic | 0.1 µF |
| C40 | F1G1E271A090 | Ceramic | 270 pF |
| C41 | F1G1C104A077 | Ceramic | 0.1 µF |
| C43-45 | F1G1C153A081 | Ceramic | 0.015 µF |
| C46,47 | YW36B103K1T | Ceramic | 0.01 µF |
| C48 | F1G0J1050005 | Ceramic | 1 µF |
| C49 | F1G1C104A077 | Ceramic | 0.1 µF |
| C50,51 | YW36B103K1T | Ceramic | 0.01 µF |
| C53 | F1H1E273A002 | Ceramic | 0.027 µF |

| REF. NO. | PART NO. | DESCRIPTION | |
|---|---|---|---|
| C55 | F1J0J2260004 | Ceramic | 22 µF |
| C56 | F1G1C153A081 | Ceramic | 0.015 µF |
| C64,66 | YW36B103K1T | Ceramic | 0.01 µF |
| C68 | F1G1C104A077 | Ceramic | 0.1 µF |
| C72 | YW36B103K1T | Ceramic | 0.01 µF |
| C73 | F1H1E273A002 | Ceramic | 0.027 µF |
| C74 | F1G1C153A081 | Ceramic | 0.015 µF |
| C75 | F1G1C104A077 | Ceramic | 0.1 µF |
| C98,99 | F1G1H122A571 | Ceramic | 1200 pF |
| C101 | F1K1C1060001 | Ceramic | 10 µF |
| C102 | EEFCD1C4R7ER | Electrolytic | 4.7 µF 16V |
| C103 | F1K1C1060001 | Ceramic | 10 µF |
| C111,113 | F3G1C106A020 | Tantalum | 10 µF 16V |
| C114,115 | F3G1C106A020 | Tantalum | 10 µF 16V |
| C118 | F1K1C1060001 | Ceramic | 10 µF |
| C121,122 | F3G1C106A020 | Tantalum | 10 µF 16V |
| C123 | F1G1C104A077 | Ceramic | 0.1 µF |
| C128 | F3G1V335A017 | Tantalum | 3.3 µF 35V |
| C129,131 | F1H1C683A001 | Ceramic | 0.068 µF |
| C133 | F3G1V335A017 | Tantalum | 3.3 µF 35V |
| C149-154 | F1H1C474A002 | Ceramic | 0.47 µF |
| C156 | F1G1C104A077 | Ceramic | 0.1 µF |
| C157 | EEEHB1C220R | Electrolytic | 22 µF 16V |
| C158 | YW36B103K1T | Ceramic | 0.01 µF |
| C159 | EEFCD0K330ER | Electrolytic | 33 µF 8V |
| C161 | F1G1C331A001 | Ceramic | 330 pF |
| C162 | F1G1C104A077 | Ceramic | 0.1 µF |
| C163 | F1K1C1060001 | Ceramic | 10 µF |
| C164,165 | F1G1C104A077 | Ceramic | 0.1 µF |
| C166 | F1J1C1050013 | Ceramic | 1 µF |
| C167 | F3G1V335A017 | Tantalum | 3.3 µF 35V |
| C168 | YW36B103K1T | Ceramic | 0.01 µF |
| C169 | EEFCD0J470ER | Electrolytic | 47 µF 6.3V |
| C170 | F1G1C104A077 | Ceramic | 0.1 µF |
| C171 | YW36B103K1T | Ceramic | 0.01 µF |
| L1 | G1A101DA0021 | Coil | 100 µH |
| L2 | G1A220EA0026 | Coil | 22 µH |
| L3 | G1A101DA0021 | Coil | 100 µH |
| L4 | G1A220EA0026 | Coil | 22 µH |
| L14 | G1C101ZA0117 | Coil | 100 µH |
| L15,16 | G1A101FA0006 | Coil | 100 µH |
| X1 | H2D160500006 | Ceramic Oscillator | 16.000 MHz |
| CN1 | K1MN24AA0007 | 24-pin Connector | |
| CN2 | K1KB18A00042 | 18-pin Connector | |
| CN3 | K1KA05AA0083 | 5-pin Connector | |
| CN4 | K1KA02AA0142 | 2-pin Connector | |
| CN5 | K1KA18A00098 | 18-pin Connector | |

| REF. NO. | PART NO. | DESCRIPTION |
|---|---|---|
| **TILT BOARD** | | |
| PCB3 (RTL) | VNS95JKC4B | Printed Circuit Board Ass'y |
| VS901 | B4ABB0000003 | Magnetic Sensor (Hall Element) |
| R901 | ERJ3GEY0R00 | Metal 0 ohm 1/10W |
| C901 | MCUV1E104ZFV | Ceramic 0.1 µF |
| CN400 | K1MY06BA0069 | 6-pin Connector |
| **SENSOR BOARD** | | |
| **Note:** CCD Image Sensor (IC502) on the Sensor Board is not inclued in the Sensor Board Ass'y (PCB4). See Miscellaneous on page 7-1 for ordering. | | |
| PCB4 (RTL) | VNS95JKD4B | Printed Circuit Board Ass'y |
| IC500,501 | C0JBAB000743 | Inverter |
| IC503 | C0JBAB000743 | Inverter |
| Q500 | B1ABDB000023 | Transistor |
| R502 | ERJ2GEJ100 | Metal 10 ohms 1/16W |
| R503 | ERJ2GE0R00 | Metal 0 ohm 1/16W |
| R504 | ERJ2GEJ392 | Metal 3.9K ohms 1/16W |
| R505 | ERJ2GEJ330 | Metal 33 ohms 1/16W |
| R506 | ERJ2GEJ100 | Metal 10 ohms 1/16W |
| R507 | ERJ2GE0R00 | Metal 0 ohm 1/16W |
| R510 | ERJ2GEJ330 | Metal 33 ohms 1/16W |
| R511 | ERJ2GEJ105 | Metal 1M ohms 1/16W |
| R514 | ERJ2GEJ750 | Metal 75 ohms 1/16W |
| C500 | F1G0J1050005 | Ceramic 1 µF |
| C501 | F1G1C104A077 | Ceramic 0.1 µF |
| C502 | F1J1E105A008 | Ceramic 1 µF |
| C503 | F1G0J1050005 | Ceramic 1 µF |
| C504 | F1G1C104A077 | Ceramic 0.1 µF |
| C506 | F1G1E271A090 | Ceramic 270 pF |
| C507 | F1G0J1050005 | Ceramic 1 µF |
| C509 | F1G1C104A077 | Ceramic 0.1 µF |
| C510 | F3G1C226A022 | Tantalum 22 µF 16V |
| C511 | YW36CH101J5T | Ceramic 100 pF |
| L500 | ELJFC101JF | Coil 100 µH |
| CN500 | K1MN20BA0180 | 20-pin Connector |

| REF. NO. | PART NO. | DESCRIPTION |
|---|---|---|
| **NETWORK BOARD** | | |
| PCB5 (RTL) | 0E0A0015AA | Printed Circuit Board Ass'y (See **Notes** below.) |
| IC3 | C2HBCY000020 | Digital Media Processor (BGA. See **Notes** below.) |
| IC6,7 | C3ABRG000059 | SDRAM |
| IC8 | C0JBAS000249 | Analog Switch |
| IC9 | C0JBAM000126 | Multivibrator |
| IC10 | VNS9PSA107 | Flash Memory |
| IC11 | C0JBAB000350 | Inverter |
| IC12 | C0JBAE000238 | Single 2-Input OR Gate |
| IC13 | C5CB00000060 | Bus Fast Ethernet Controller |
| IC18,19 | C0DBAMH00013 | DC/DC Converter |
| IC24 | ———————— | RTC (See **Notes** below.) |
| IC25 | C0JBAS000249 | Analog Switch |
| IC26 | C0ABCB000051 | Operational Amplifier |
| IC27 | C0JBAR000303 | Analog Multiplexers/Demultiplexers |
| IC29 | C1CB00001938 | Single Pail Codec |
| IC600 | C0EBB0000072 | Voltage Detector |
| IC601 | C0EBE0000276 | Voltage Detector |
| IC602 | C0CBCBD00008 | 3.3V Regulator |
| IC605 | C0CBCDD00004 | Voltage Regulator |
| IC700 | C1AB00002764 | Receiver (QFN) |
| IC701 | C0CBCBD00008 | 3.3V Regulator |
| IC702 | C0ABBA000063 | Dual Operational Amplifiers |
| IC703 | C0JBAZ002222 | Buffer |
| IC704 | C9ZB00000474 | Video Driver with LPF |
| IC705,706 | C0JBAB000350 | Inverter |
| Q2 | DTC114YUAT06 | Transistor |
| Q18 | B1GBCFQA0002 | Transistor |
| Q24 | DTC144TU06 | Transistor |
| Q25 | B1GFCFGN0001 | Transistor |
| Q27,28 | B1GBCFQA0002 | Transistor |
| Q600 | DTC114YUAT06 | Transistor |
| Q601 | DTC144TU06 | Transistor |
| Q603,604 | 2SC4097QR6 | Transistor |
| Q605 | B1GDCFJN0011 | Transistor |
| Q700 | 2SC4097QR6 | Transistor |
| Q701 | B1ADCF000020 | Transistor |
| Q702 | DTC114YUAT06 | Transistor |
| D2 | B0JCME000041 | Diode |
| D10,11 | B0JCPD000036 | Diode |
| D22 | B0ADCJ000015 | Diode |
| D23,24 | B0ADCJ000012 | Diode |
| D25,26 | B0ADCJ000025 | Diode |
| D30,31 | B0ADCJ000015 | Diode |
| D702 | B3ABB0000216 | LED |
| D703 | B3ADB0000070 | LED |

**Notes:**

- BGA package requires special equipment for replacement.
- RTC (IC24) contains MAC Address, and it is supplied as Printed Circuit Board Ass'y (PCB5) only.
- After replacing the Printed Circuit Board Ass'y (PCB5), adjust the clock properly.
- After replacing the Lithium Battery (BAT1), adjust the clock properly. (Setup data other than the clock are maintained.)

| REF. NO. | PART NO. | DESCRIPTION | |
|---|---|---|---|
| D704 | B3ACB0000134 | LED | |
| D705 | B3AAB0000202 | LED | |
| VS700,701 | D4EDY1210001 | Varistor | |
| VS702-704 | J0LB00000063 | ZNR | |
| R3,5 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R6 | ERJ2GEJ151 | Metal | 150 ohms 1/16W |
| R7,8 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R22,24 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R25,27 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R36,38 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R39 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R44 | ERJ2GEJ162 | Metal | 1.6K ohms 1/16W |
| R46,49 | ERJ2GEJ472 | Metal | 4.7K ohms 1/16W |
| R50 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R52 | ERJ2GEJ471 | Metal | 470 ohms 1/16W |
| R53 | D0HA113ZA001 | Metal | 11K ohms 1/16W |
| R55 | ERJ2GEJ201 | Metal | 200 ohms 1/16W |
| R56 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R57 | ERJ2GEJ105 | Metal | 1M ohms 1/16W |
| R58 | ERJ3EKF1202V | Metal | 12K ohms 1/16W |
| R59 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R61 | ERJ2GE0R00 | Metal | 0 ohm 1/16W |
| R62,63 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R65,67 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R68 | ERJ2GEJ100 | Metal | 10 ohms 1/16W |
| R70 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R71 | ERJ2GEJ104 | Metal | 100K ohms 1/16W |
| R73,75 | ERJ2GE0R00 | Metal | 0 ohm 1/16W |
| R77 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R78 | ERJ2GEJ430X | Metal | 43 ohms 1/16W |
| R79 | ERJ6GEYJ750 | Metal | 75 ohms 1/8W |
| R81 | ERJ2GE0R00 | Metal | 0 ohm 1/16W |
| R87 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R88,89 | ERJ2GEJ472 | Metal | 4.7K ohms 1/16W |
| R90 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R93 | ERJ2GEJ472 | Metal | 4.7K ohms 1/16W |
| R94,98 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R104 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R106 | ERJ2GE0R00 | Metal | 0 ohm 1/16W |
| R109,112 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R113-117 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R118 | D0HA203ZA001 | Metal | 20K ohms 1/16W |
| R119 | ERJ3EKF2491V | Metal | 2.49K ohms 1/16W |
| R120 | ERJ3EKF2492V | Metal | 24.9K ohms 1/16W |
| R121 | ERJ2GEJ105 | Metal | 1M ohms 1/16W |
| R122 | ERJ2GEJ471 | Metal | 470 ohms 1/16W |
| R123 | ERJ3GEY0R00 | Metal | 0 ohm 1/10W |
| R124-127 | ERJ3EKF49R9V | Metal | 49.9 ohms 1/16W |
| R131 | ERJ2GEJ331 | Metal | 330 ohms 1/16W |
| R132 | ERJ2GEJ821X | Metal | 820 ohms 1/16W |
| R137,138 | ERJ2GEJ154 | Metal | 150K ohms 1/16W |
| R140,141 | ERJ2GEJ164 | Metal | 160K ohms 1/16W |
| R145 | D0HA682ZA001 | Metal | 6.8K ohms 1/16W |
| R146 | D0HA821ZA001 | Metal | 820 ohms 1/16W |
| R147 | D0HA332ZA001 | Metal | 3.3K ohms 1/16W |

| REF. NO. | PART NO. | DESCRIPTION | |
|---|---|---|---|
| R149 | D0HA102ZA001 | Metal | 1K ohms 1/16W |
| R150 | D0HA821ZA001 | Metal | 820 ohms 1/16W |
| R152 | D0HA332ZA001 | Metal | 3.3K ohms 1/16W |
| R170 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R172,174 | ERJ2GEJ472 | Metal | 4.7K ohms 1/16W |
| R175,176 | ERJ2GEJ222 | Metal | 2.2K ohms 1/16W |
| R179 | ERJ14YJ1R0H | Metal | 1 ohms 1/4W |
| R182 | ERJ2GEJ821X | Metal | 820 ohms 1/16W |
| R183,184 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R185-188 | ERJ2GEJ513X | Metal | 51K ohms 1/16W |
| R190 | ERJ2GEJ224 | Metal | 220K ohms 1/16W |
| R191,192 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R196 | ERJ2GEJ220 | Metal | 22 ohms 1/16W |
| R202 | ERJ2GEJ472 | Metal | 4.7K ohms 1/16W |
| R207 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R209,210 | ERJ2GEJ222 | Metal | 2.2K ohms 1/16W |
| R211 | ERJ2GEJ333 | Metal | 33K ohms 1/16W |
| R212 | ERJ2GEJ472 | Metal | 4.7K ohms 1/16W |
| R214 | ERJ2GEJ152 | Metal | 1.5K ohms 1/16W |
| R215 | ERJ2GEJ333 | Metal | 33K ohms 1/16W |
| R217 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R218 | ERJ2GEJ561 | Metal | 560 ohms 1/16W |
| R219 | ERJ2GEJ104 | Metal | 100K ohms 1/16W |
| R221 | ERJ2GEJ154 | Metal | 150K ohms 1/16W |
| R224 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R227 | ERJ2GEJ154 | Metal | 150K ohms 1/16W |
| R228 | ERJ2GEJ102 | Metal | 1K ohms 1/16W |
| R229 | ERJ2GEJ334 | Metal | 330K ohms 1/16W |
| R230 | ERJ2GEJ683 | Metal | 68K ohms 1/16W |
| R231,232 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R233 | ERJ2GEJ333 | Metal | 33K ohms 1/16W |
| R236 | ERJ2GEJ154 | Metal | 150K ohms 1/16W |
| R238 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R600-602 | ERJ2GEJ430X | Metal | 43 ohms 1/16W |
| R603 | ERJ2GEJ101 | Metal | 100 ohms 1/16W |
| R604,605 | ERJ2GEJ430X | Metal | 43 ohms 1/16W |
| R606 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R612 | ERJ2GE0R00 | Metal | 0 ohm 1/16W |
| R613 | ERJ2GEJ105 | Metal | 1M ohms 1/16W |
| R618 | ERJ3GEY0R00 | Metal | 0 ohm 1/10W |
| R623 | ERJ2GEJ104 | Metal | 100K ohms 1/16W |
| R624,625 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R628 | ERJ2GEJ105 | Metal | 1M ohms 1/16W |
| R700,701 | ERJ3GEY0R00 | Metal | 0 ohm 1/10W |
| R702,703 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R704 | ERJ2GE0R00 | Metal | 0 ohm 1/16W |
| R709 | ERJ2GEJ101 | Metal | 100 ohms 1/16W |
| R710,711 | ERJ2GE0R00 | Metal | 0 ohm 1/16W |
| R712 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R713 | ERJ2GEJ303 | Metal | 30K ohms 1/16W |
| R714 | ERJ2GEJ203 | Metal | 20K ohms 1/16W |
| R715 | ERJ2GEJ102 | Metal | 1K ohms 1/16W |
| R716,717 | ERJ2GEJ104 | Metal | 100K ohms 1/16W |
| R718 | ERJ2GEJ202 | Metal | 2K ohms 1/16W |
| R719 | ERJ2GEJ392 | Metal | 3.9K ohms 1/16W |

| REF. NO. | PART NO. | DESCRIPTION | |
|---|---|---|---|
| R720 | ERJ2GEJ202 | Metal | 2K ohms 1/16W |
| R721 | ERJ2GEJ104 | Metal | 100K ohms 1/16W |
| R722,723 | ERJ2GE0R00 | Metal | 0 ohm 1/16W |
| R725,727 | ERJ2GE0R00 | Metal | 0 ohm 1/16W |
| R729 | ERJ2GEJ102 | Metal | 1K ohms 1/16W |
| R730,734 | ERJ1TYJ331U | Metal | 330 ohms 1W |
| R735,736 | ERJ2GE0R00 | Metal | 0 ohm 1/16W |
| R740,741 | ERJ6GEYJ750 | Metal | 75 ohms 1/8W |
| R743,744 | ERJ3GEY0R00 | Metal | 0 ohm 1/10W |
| R746 | ERJ2GE0R00 | Metal | 0 ohm 1/16W |
| R747 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R749 | ERJ2GEJ121 | Metal | 120 ohms 1/16W |
| R750,751 | ERJ2GEJ202 | Metal | 2K ohms 1/16W |
| R752 | ERJ2GEJ681 | Metal | 680 ohms 1/16W |
| R753,754 | ERJ3GEY0R00 | Metal | 0 ohm 1/10W |
| R755 | ERJ2GE0R00 | Metal | 0 ohm 1/16W |
| R757-759 | ERJ2GEJ103 | Metal | 10K ohms 1/16W |
| R767-770 | ERJ3GEY0R00 | Metal | 0 ohm 1/10W |
| R779,780 | ERJ3GEY0R00 | Metal | 0 ohm 1/10W |
| R782-784 | ERJ3GEY0R00 | Metal | 0 ohm 1/10W |
| Z1-4 | EXB28V103JX | Block Resistor | 10K ohms |
| Z5-12 | EXB28V680JX | Block Resistor | 68 ohms |
| Z13 | EXB28V103JX | Block Resistor | 10K ohms |
| Z14 | EXB28V220JX | Block Resistor | 22 ohms |
| Z600,601 | EXB28V221JX | Block Resistor | 220 ohms |
| Z602-605 | EXB28V330JX | Block Resistor | 33 ohms |
| Z606-608 | EXB28V680JX | Block Resistor | 68 ohms |
| Z612,613 | EXB28V680JX | Block Resistor | 68 ohms |
| Z700 | EXB28V103JX | Block Resistor | 10K ohms |
| C6 | F3F1C106A039 | Tantalum | 10 µF 16V |
| C7 | F1G1C104A077 | Ceramic | 0.1 µF |
| C10 | F3F1C106A039 | Tantalum | 10 µF 16V |
| C11 | F1G1E1030005 | Ceramic | 0.01 µF |
| C12 | F1G1H1020008 | Ceramic | 1000 pF |
| C13 | F1G1C104A077 | Ceramic | 0.1 µF |
| C14 | F1G1E1030005 | Ceramic | 0.01 µF |
| C15 | F1G1H1020008 | Ceramic | 1000 pF |
| C16 | F1G1C104A077 | Ceramic | 0.1 µF |
| C17 | F1G1E1030005 | Ceramic | 0.01 µF |
| C18 | F1G1C104A077 | Ceramic | 0.1 µF |
| C19 | F3F1C106A039 | Tantalum | 10 µF 16V |
| C20-22 | F1G1E1030005 | Ceramic | 0.01 µF |
| C23 | F1G1H180A565 | Ceramic | 18 pF |
| C24 | F1G1C104A077 | Ceramic | 0.1 µF |
| C25 | F1G1E1030005 | Ceramic | 0.01 µF |
| C26 | F1G1H150A565 | Ceramic | 15 pF |
| C27 | F1G1E1030005 | Ceramic | 0.01 µF |
| C28 | F1G1C104A077 | Ceramic | 0.1 µF |
| C29 | F3F1C106A039 | Tantalum | 10 µF 16V |
| C30 | F1G1H1020008 | Ceramic | 1000 pF |
| C31 | F1G1C104A077 | Ceramic | 0.1 µF |
| C32 | F1G1E1030005 | Ceramic | 0.01 µF |
| C33 | F1G1H1020008 | Ceramic | 1000 pF |
| C34 | F1G1E1030005 | Ceramic | 0.01 µF |
| C35 | F1G1H1020008 | Ceramic | 1000 pF |

| REF. NO. | PART NO. | DESCRIPTION | |
|---|---|---|---|
| C36 | F1G1C104A077 | Ceramic | 0.1 µF |
| C37 | F1G1E1030005 | Ceramic | 0.01 µF |
| C38 | F1G1C104A077 | Ceramic | 0.1 µF |
| C39 | F1G1E1030005 | Ceramic | 0.01 µF |
| C40 | F1G1C104A077 | Ceramic | 0.1 µF |
| C42 | F1L1C2260011 | Ceramic | 22 µF |
| C43 | F1G0J1050005 | Ceramic | 1 µF |
| C51-58 | F1G1C104A077 | Ceramic | 0.1 µF |
| C59 | F1G1H1020008 | Ceramic | 1000 pF |
| C60,61 | F1G1C104A077 | Ceramic | 0.1 µF |
| C62 | F1G1H1020008 | Ceramic | 1000 pF |
| C63,64 | F3G1A476A029 | Tantalum | 47 µF 10V |
| C65 | F1G1C104A077 | Ceramic | 0.1 µF |
| C66 | F1G1H1020008 | Ceramic | 1000 pF |
| C67 | F1G1C104A077 | Ceramic | 0.1 µF |
| C68 | F1G1H1020008 | Ceramic | 1000 pF |
| C69-72 | F1G1C104A077 | Ceramic | 0.1 µF |
| C73 | F3F1C106A039 | Tantalum | 10 µF 16V |
| C74 | F1G1E1030005 | Ceramic | 0.01 µF |
| C75-78 | F1G1C104A077 | Ceramic | 0.1 µF |
| C79-87 | F1G1E1030005 | Ceramic | 0.01 µF |
| C88 | F1G1C104A077 | Ceramic | 0.1 µF |
| C89-95 | F1G1E1030005 | Ceramic | 0.01 µF |
| C96 | F1G1H1020008 | Ceramic | 1000 pF |
| C97-100 | F3F1C106A039 | Tantalum | 10 µF 16V |
| C101 | F1G1H120A565 | Ceramic | 12 pF |
| C102-104 | F1G1C104A077 | Ceramic | 0.1 µF |
| C105-107 | F3F1C106A039 | Tantalum | 10 µF 16V |
| C109 | F1G1H120A565 | Ceramic | 12 pF |
| C110 | F1G1C104A077 | Ceramic | 0.1 µF |
| C111,112 | F3F1C106A039 | Tantalum | 10 µF 16V |
| C113 | F1G1C104A077 | Ceramic | 0.1 µF |
| C114 | F1G1E1030005 | Ceramic | 0.01 µF |
| C116,117 | F1G1H1020008 | Ceramic | 1000 pF |
| C123 | F4D55224A015 | Electrolytic | 0.22 µF5.5V |
| C127,128 | F1G1E472A086 | Ceramic | 4700 pF |
| C130,131 | F1G1C104A077 | Ceramic | 0.1 µF |
| C133 | F4Z0J1570003 | Electrolytic | 150 µF 6.3V |
| C134 | F4Z0J3370001 | Electrolytic | 330 µF 6.3V |
| C142-144 | F1G1E1030005 | Ceramic | 0.01 µF |
| C147 | F1G1E1030005 | Ceramic | 0.01 µF |
| C151,152 | F1G1C104A077 | Ceramic | 0.1 µF |
| C156 | F1G1C104A077 | Ceramic | 0.1 µF |
| C158 | F3G1A336A028 | Tantalum | 33 µF 10V |
| C159,161 | F1G1C104A077 | Ceramic | 0.1 µF |
| C162 | F1G1C104A077 | Ceramic | 0.1 µF |
| C164 | F3H1C336A044 | Tantalum | 33 µF 16V |
| C165,166 | F1G1C104A077 | Ceramic | 0.1 µF |
| C167,168 | F1G1C683A077 | Ceramic | 0.068 µF |
| C169 | F1G1H100A565 | Ceramic | 10 pF |
| C170 | F1G1H1020008 | Ceramic | 1000 pF |
| C171 | F1G1H100A565 | Ceramic | 10 pF |
| C172 | F3G1C226A022 | Tantalum | 22 µF 16V |
| C173 | F1G1H122A571 | Ceramic | 1200 pF |
| C175 | F1G1C104A077 | Ceramic | 0.1 µF |

| REF. NO. | PART NO. | DESCRIPTION | |
|---|---|---|---|
| C176 | F3H1C336A044 | Tantalum | 33 µF 16V |
| C178 | F1G1H1020008 | Ceramic | 1000 pF |
| C180 | F1G1H221A571 | Ceramic | 220 pF |
| C181,182 | F1G1C104A077 | Ceramic | 0.1 µF |
| C185 | F1G1H1020008 | Ceramic | 1000 pF |
| C187 | F1G1H221A571 | Ceramic | 220 pF |
| C188 | F1G1C333A081 | Ceramic | 0.033 µF |
| C189 | F1G1H101A565 | Ceramic | 100 pF |
| C190 | F1G1H4710004 | Ceramic | 470 pF |
| C192 | F1G0J2240002 | Ceramic | 0.22 µF |
| C193 | F1G1C104A077 | Ceramic | 0.1 µF |
| C195 | F3F1C106A039 | Tantalum | 10 µF 16V |
| C196 | F1G1E271A090 | Ceramic | 270 pF |
| C197 | F1G1H1020008 | Ceramic | 1000 pF |
| C202,205 | F1G1C104A077 | Ceramic | 0.1 µF |
| C206 | F3F1C106A039 | Tantalum | 10 µF 16V |
| C601-604 | F1G1C104A077 | Ceramic | 0.1 µF |
| C605 | F1G1E1030005 | Ceramic | 0.01 µF |
| C611,612 | F3F1C106A039 | Tantalum | 10 µF 16V |
| C613 | F2G1C470A027 | Electrolytic | 47 µF 16V |
| C617 | F3G1A476A029 | Tantalum | 47 µF 10V |
| C621,622 | F1L1C1060018 | Ceramic | 10 µF |
| C625,627 | F1H1C105A118 | Ceramic | 1 µF |
| C628,629 | F1J0J2260004 | Ceramic | 22 µF |
| C700,701 | F1G1C104A077 | Ceramic | 0.1 µF |
| C702 | F3F1C106A039 | Tantalum | 10 µF 16V |
| C703,704 | F1H1C105A118 | Ceramic | 1 µF |
| C705 | F1G1H1020008 | Ceramic | 1000 pF |
| C706 | F1G1C104A077 | Ceramic | 0.1 µF |
| C707 | F3F1C106A039 | Tantalum | 10 µF 16V |
| C708 | F1H1C105A118 | Ceramic | 1 µF |
| C709 | F1G1H1020008 | Ceramic | 1000 pF |
| C710 | F1G1C104A077 | Ceramic | 0.1 µF |
| C711 | F1G1H1020008 | Ceramic | 1000 pF |
| C712 | F1G1C104A077 | Ceramic | 0.1 µF |
| C713,714 | F1G0J1050005 | Ceramic | 1 µF |
| C715 | F1H1E104A029 | Ceramic | 0.1 µF |
| C718 | F3G1C156A021 | Tantalum | 15 µF 16V |
| C719 | F1G1C104A077 | Ceramic | 0.1 µF |
| C720 | F1K2J102A006 | Ceramic | 1000 pF |
| C723,724 | F1K2A1040005 | Ceramic | 0.1 µF |
| C726,728 | YW36B102K5T | Ceramic | 1000 pF |
| C729-731 | F1G1C104A077 | Ceramic | 0.1 µF |
| C733 | F4Z0J1570003 | Electrolytic | 150 µF 6.3V |
| C750 | F1G1H103A573 | Ceramic | 0.01 µF |
| C751,752 | F1L1C2260011 | Ceramic | 22 µF |
| C753,754 | F1G1H560A565 | Ceramic | 56 pF |
| CF1,2 | J0MAB0000185 | Filter | |
| CF700,701 | J0MAB0000185 | Filter | |
| L2,3 | J0JHC0000075 | Coil | 60 µH |
| L5,7 | J0JHC0000075 | Coil | 60 µH |
| L9-12 | J0JHC0000075 | Coil | 60 µH |
| L18,20 | ELJFC470KF | Coil | 47 µH |
| L21 | ELJFC470KF | Coil | 47 µH |
| L25 | ELJFC101KB | Coil | 100 µH |

| REF. NO. | PART NO. | DESCRIPTION | |
|---|---|---|---|
| L28 | ELJPA221KF | Coil | 220 µH |
| L29 | G1A101DA0028 | Coil | 100 µH |
| L30 | G1A101EA0027 | Coil | 100 µH |
| L600,601 | ELJFC101KB | Coil | 100 µH |
| L700 | J0JHC0000075 | Coil | 60 µH |
| L701 | ELJPA100KF | Coil | 10 µH |
| L703,704 | J0JHC0000075 | Coil | 60 µH |
| L709 | ELJFC2R2MF | Coil | 2.2 µH |
| L710 | J0JHC0000075 | Coil | 60 µH |
| L750 | G1BYYYC00018 | Coil | |
| L751,752 | J0JEC0000006 | Coil | |
| T700 | G5BYC0000027 | High Freq Transformer | |
| X1 | H0J270500109 | Crystal Oscillator | 27.000 MHz |
| X2 | H0J250500065 | Crystal Oscillator | 25.000 MHz |
| CN2 | K1MY16BA0068 | 16-pin Connector | |
| CN4 | K1NA09B00006 | SD Card Connector | |
| CN700 | K1KA07BA0050 | 7-pin Connector | |
| CN701 | K1KA13A00143 | 13-pin Connector | |
| CN702 | K1KA12A00329 | 12-pin Connector | |
| CN703 | K1KA05AA0142 | 5-pin Connector | |
| CN704 | K1KA13AA0051 | 13-pin Connector | |
| BAT1 ⚠ | BR1632/1HF | Lithium Battery (See **Notes**.) | |

## SWITCH BOARD

| | | | |
|---|---|---|---|
| PCB6 (RTL) | VNW96JKB7A | Printed Circuit Board Ass'y | |
| VS2,5 | J0LB00000063 | ZNR | |
| VS9-12 | J0LB00000063 | ZNR | |
| SW1 | K0D211A00012 | 2-bit Dip Switch | |
| CN1 | K1KA15AA0229 | 15-pin Connector | |
| CN2 | K1KA13A00143 | 13-pin Connector | |
| CN3 | K1KA12A00329 | 12-pin Connector | |

## SD SLOT BOARD

| | | | |
|---|---|---|---|
| PCB7 (RTL) | VNW96JKC7A | Printed Circuit Board Ass'y | |
| R1 | ERJ3GEY0R00 | Metal | 0 ohm 1/10W |
| C1,159 | F1G1C104A077 | Ceramic | 0.1 µF |
| CN1 | K1KA13AA0051 | 13-pin Connector | |
| CN2 | K1NA13E00006 | Mini SD Card Connector | |

## POWER BOARD FOR WV-NW960

| REF. NO. | PART NO. | DESCRIPTION | |
|---|---|---|---|
| PCB8 (RTL) | VCW90GKY2B | Printed Circuit Board Ass'y | |
| IC1 ⚠ | C0DAEMZ00009 | Switcher | |
| IC2 | NJM431UTE11 | Shunt Regulator | |
| Q1,2 ⚠ | B3PAA0000329 | Photo Coupler | |
| D1 ⚠ | B0EDKR000011 | Diode | |
| D2 | YWSC2012 | Diode | |
| D3 | B0BA18000006 | Diode | |
| D4 | YWERB3710 | Diode | |
| D5 ⚠ | B0JBQK000001 | Diode | |
| D6,7 | B0BA22100003 | Diode | |
| VS1,2 ⚠ | ERZV07D471 | ZNR | |
| VS4 ⚠ | J0LS00000026 | ZNR | |
| SCR1 | B2AAKR000003 | Thyristor | |
| R1,2 | ERJ14YJ823H | Metal | 82K ohms 1/4W |
| R3 | ERJ6GEYJ682 | Metal | 6.8K ohms 1/8W |
| R4 | ERJ6GEYJ4R7V | Metal | 4.7 ohms 1/8W |
| R5 | ERG3SJ181 | Metal | 180 ohms 3W |
| R6 | ERJ6GEYJ220 | Metal | 22 ohms 1/8W |
| R7-9 | YF2116470JT | Metal | 47 ohms 1/8W |
| R10 | ERJ6GEYJ223 | Metal | 22K ohms 1/8W |
| R11 | ERJ6GEYJ331 | Metal | 330 ohms 1/8W |
| R12 | ERJ6GEYJ222 | Metal | 2.2K ohms 1/8W |
| R14 | ERJ6GEYJ332 | Metal | 3.3K ohms 1/8W |
| R15 | ERJ6RBD243V | Metal | 24K ohms 1/10W |
| R16 | ERJ6RBD202V | Metal | 2K ohms 1/10W |
| R17 | ERJ6RBD682V | Metal | 6.8K ohms 1/10W |
| R18 | ERJ14YJ334 | Metal | 330K ohms 1/4W |
| R19 | ERJ14Y0R00H | Metal | 0 ohm 1/4W |
| R21 | ERJ14YJ202 | Metal | 2K ohms 1/4W |
| R22 | ERJ14YJ151H | Metal | 150 ohms 1/4W |
| R23,24 | ERJ14YJ205U | Metal | 2M ohms 1/4W |
| C1 ⚠ | ECQU2A823ML | Plastic | 0.082 µF |
| C2,3 ⚠ | F1B2E1520002 | Ceramic | 1500 pF |
| C4 ⚠ | ECQU2A333MV | Plastic | 0.033 µF |
| C5 | F1J1H105A449 | Ceramic | 1 µF |
| C7 | F2A1A101A626 | Electrolytic | 100 µF 10V |
| C8 | F1J1H104A022 | Ceramic | 0.1 µF |
| C9 | F1J1H105A449 | Ceramic | 1 µF |
| C10 | ECKD3D101KB | Ceramic | 100 pF |
| C11 ⚠ | F1B2E1520002 | Ceramic | 1500 pF |
| C13 | F1J1H104A022 | Ceramic | 0.1 µF |
| C14-16 | F2A1E471A853 | Electrolytic | 470 µF 25V |
| C17 | F2A1E331A683 | Electrolytic | 330 µF 25V |
| C18 | F1K2J1030001 | Ceramic | 0.01 µF |
| C19 | F1K1A1060006 | Ceramic | 10 µF |
| C20 | F1J1H104A022 | Ceramic | 0.1 µF |
| C21 | F2A2G101A072 | Electrolytic | 100 µF 400V |
| L1,2 ⚠ | G0B183DA0007 | Line Filter | |
| L4 | G0A220H00022 | Coil | 22 µH |
| T1 ⚠ | G4DYA0000112 | Power Transformer | |

| REF. NO. | PART NO. | DESCRIPTION | |
|---|---|---|---|
| F1,2 ⚠ | K5G202B00013 | Current Fuse | 2 A 250V |
| CN1 ⚠ | K1KA02A00736 | 2-pin Connector | |
| CN2,3 ⚠ | K1KA02A00552 | 2-pin Connector | |
| CN4,5 ⚠ | K1KY02A00003 | 2-pin Connector | |
| CN6 ⚠ | K1KY02A00004 | 2-pin Connector | |
| E3,4 | YWM1866A | Ground Terminal | |
| E5 | K1PB05D00002 | Cable for Network Board CN703 | |
| E6 | YWM1866A | Ground Terminal | |
| M81 ⚠ | 3DG001305AAA | Power Transformer Insulator Case | |
| M82 | 3KB001164AAA | Heat Sink (for IC1, D5) | |
| M83 | V2PA1286A4 | Insulator Sheet (for IC1) | |
| M84 | 3KB001167AAA | Insulator Tube (for IC1) | |
| M85 | 3DE001056AAA | IPD Clip (for IC1, D5) | |

## POWER BOARD FOR WV-NW964

| | | | |
|---|---|---|---|
| PCB8 (RTL) | VCW94EKY2A | Printed Circuit Board Ass'y | |
| IC1 ⚠ | C0DAEMZ00009 | Switcher | |
| IC2 | NJM431UTE11 | Shunt Regulator | |
| Q1,2 ⚠ | B3PAA0000329 | Photo Coupler | |
| D1,2 ⚠ | B0HAPM000003 | Diode | |
| D3 | B0BA18000006 | Diode | |
| D4 | YWERB3710 | Diode | |
| D5 | B0ADCJ000007 | Diode | |
| D6 | YWSC2012 | Diode | |
| D7 ⚠ | B0JBQK000001 | Diode | |
| VS1 ⚠ | ERZV10D820 | ZNR | |
| VS2 ⚠ | ERZV07D471 | ZNR | |
| VS4,5 ⚠ | ERZV14D101 | Varistor | |
| R1,2 | ERJ14YJ112 | Metal | 1.1K ohms 1/4W |
| R3 | ERJ6GEYJ561V | Metal | 560 ohms 1/8W |
| R4 | ERJ6GEYJ4R7V | Metal | 4.7 ohms 1/8W |
| R5 | ERG3SJ181 | Metal | 180 ohms 3W |
| R6 | ERJ6GEYJ220 | Metal | 22 ohms 1/8W |
| R7-9 | YF2116470JT | Metal | 47 ohms 1/8W |
| R10 | ERJ6GEYJ223 | Metal | 22K ohms 1/8W |
| R11 | ERJ6GEYJ331 | Metal | 330 ohms 1/8W |
| R12 | ERJ6GEYJ222 | Metal | 2.2K ohms 1/8W |
| R14 | ERJ6GEYJ332 | Metal | 3.3K ohms 1/8W |
| R15 | ERJ6RBD243V | Metal | 24K ohms 1/10W |
| R16 | ERJ6RBD202V | Metal | 2K ohms 1/10W |
| R17 | ERJ6RBD682V | Metal | 6.8K ohms 1/10W |
| R18 | ERJ6GEYJ474 | Metal | 470K ohms 1/8W |
| R19 | ERJ14Y0R00H | Metal | 0 ohm 1/4W |
| R21 | ERJ6GEYJ474 | Metal | 470K ohms 1/8W |
| R22 | ERJ14YJ393 | Metal | 39K ohms 1/4W |
| C1 ⚠ | ECQE2334KF | Plastic | 0.33 µF |
| C2,3 ⚠ | ECQE6103KF | Plastic | 0.01 µF 630V |
| C4 ⚠ | ECQV1104JM | Plastic | 0.1 µF |
| C5,6 | F2A1H222A863 | Electrolytic | 2200 µF 50V |
| C7 | F2A1A101A626 | Electrolytic | 100 µF 10V |

| REF. NO. | | PART NO. | DESCRIPTION | |
|---|---|---|---|---|
| C8 | | F1J1H104A022 | Ceramic | 0.1 µF |
| C9 | | F1J1H105A449 | Ceramic | 1 µF |
| C10 | | F1K2J471A005 | Ceramic | 470 pF |
| C11 | ⚠ | ECQE6103KF | Plastic | 0.01 µF 630V |
| C13 | | F1J1H104A022 | Ceramic | 0.1 µF |
| C14-16 | | F2A1E471A853 | Electrolytic | 470 µF 25V |
| C17 | | F2A1E331A683 | Electrolytic | 330 µF 25V |
| C18 | | F1J1H104A022 | Ceramic | 0.1 µF |
| C19 | | F1K2J1030001 | Ceramic | 0.01 µF |
| C20 | | F1J1H105A449 | Ceramic | 1 µF |
| L1,2 | ⚠ | G0B182GA0024 | Line Filter | |
| L3 | | J0JKB0000004 | Beads Inductor | |
| L4 | | G0A220H00022 | Coil | 22 µH |
| T1 | ⚠ | G4D2A0000203 | Power Transformer | |
| F1,2 | ⚠ | K5G402B00012 | Current Fuse | 4 A 250V |
| CN1 | ⚠ | K1KA02A00736 | 2-pin Connector | |
| CN2,3 | ⚠ | K1KA02A00552 | 2-pin Connector | |
| CN4,5 | ⚠ | K1KY02A00003 | 2-pin Connector | |
| CN6 | ⚠ | K1KY02A00006 | 2-pin Connector | |
| E3,4 | | YWM1866A | Ground Terminal | |
| E5 | | K1PB05D00002 | Cable for Network Board CN703 | |
| E6 | | YWM1866A | Ground Terminal | |
| M82 | | 3KB001164AAA | Heat Sink (for IC1, D7) | |
| M83 | ⚠ | V2PA1286A4 | Insulator Sheet (for IC1) | |
| M84 | ⚠ | 3KB001167AAA | Insulator Tube (for IC1) | |
| M85 | | 3DE001056AAA | IPD Clip (for IC1, D7) | |

| REF. NO. | | PART NO. | DESCRIPTION |
|---|---|---|---|
| **ACCESSORY PARTS / PACKAGING PARTS** | | | |
| CN101 | | YWMX5557P04 | Connector for 24V AC for WV-NW964 |
| JK101 | | K2LC1YYZ0001 | RJ45 Conversion Connector |
| E101 | | VNS9CSA403 | CD-ROM (O/I) |
| E102 | | CS850MLTB | Alarm Cable Ass'y (8P, 4P)<br>(Use 8P Alarm Cable only) |
| M10 | ⚠ | V5YB0529AN | Safety Wire |
| M101 | ⚠ | 3TR005356BAA | Installation Guide (Chinese) |
| M103 | ⚠ | 3DA002400AAA | Front Sun Shield |
| M104 | ⚠ | 3DA002401BAA | Rear Sun Shield |
| M105 (⑤) | | XTB3+8GV | Binding Head Tapping Screw |
| M106 (⑬) | | XYN4+J10V | Pan Head Machine Screw and<br>Washer Ass'y<br>(Fixing Screws for Front/Rear Sun Shield) |
| M107 | | 3CX001600AAA | Watertight Cap |
| M108 | | 3RD001282AAA | Polyethylene Bag (for CD-ROM) |
| M109 | | YWT050803 | Polyethylene Bag |
| M110 | | PE26X40C05B | Polyethylene Bag |
| M111 | | PE45X63C05B | Polyethylene Bag |
| M112 | | V9CT5144AN | Packaging Ass'y for WV-NW960 |
| | | V9CS5144AN | Packaging Ass'y for WV-NW964 |
| M113 | ⚠ | 3TR005399BAA | Installation Guide (English) |
| M114 | | 3TU001753AAA | Certificate of Conformance |